

From the Editor's Desk

Many thanks for your feedback & suggestions on the maiden issue of 'Repol Konnect'! Response to our quarterly newsletter had been highly encouraging. In this edition, we have added a new segment "Customer Speak" to introduce successful and innovative entrepreneurs from polymer processing industry.

During July-September 2011 we have expanded our customer contact by organizing more than 25 events all over India. Many of you were participants of these events and supporting our initiatives to bring awareness on new applications. Let's continue our partnership. Hope you will like this edition and we look forward to your continued support.

Best Regards
C. Paparao



VASVIK AWARD FOR ADVANCEMENT OF POLYPROPYLENE CATALYST-DONOR TECHNOLOGY



Dr V K Gupta R&D Chief Polymer has been awarded VASVIK Award in Chemical Sciences and Technology for Outstanding contribution to the Advancement of Science and Technology in the area of Polypropylene Catalyst – Donor Technology development for Homo, Random & ICP grades. The work done on Polypropylene Catalyst Donor at RIL has resulted into 35

International and National Patents Applications and three Indian Trademark RELCAT, RELD & RELS. Prestigious VASVIK award was instituted in 1978 and some of the earlier recipients of this award include also Dr S Sivaram, Dr Paul Ratnaswami, Dr A V Ramarao and Prof J B Joshi.



Special Features



RIL participation at FICCI TechnoTex Exhibition
.... Page No. 4



Warren Wilder addresses customers in Eastern Region at Kolkata Page No. 7

Meet our Leader



Warren William Wilder

Mr Warren William Wilder joined RIL as President, Polymer & Cracker Business in late 2010. He has an experience of over 20 years in refining and petrochemical industry in the global arena. He has worked across several geographies notably North & South America and in Asia Pacific. He is an Hons. graduate in Chemical Engineering from Univ. of Washington at Seattle and completed his MBA in Finance at University of Chicago.

Flexiliner - Innovation in Polymer Supply Chain

Reliance Polymer Logistics team and a leading BOPP manufacturer of India, jointly developed a customized Flexiliner for bulk movement of Repol Polypropylene resin. The expensive Jumbo Bags, which were used earlier in the domestic market, are being replaced and thereby setting example of Best Practices in Supply Chain Management in India.



Joint work and close-knitted partnership of RIL and its customer have indeed created a new benchmark in supply chain of the polymer business.

According to him Indian polymer Industry is poised for big leap in next couple of years & growth in polymer consumption will come from strong domestic demand as well as exports of finished goods. Mr Wilder highlighted the need for Indian processors to invest in new technologies with automation in a big way to reduce cost of operation & increase efficiency. Export oriented growth can be achieved with economies of scale. In his opinion, M&A in polymer downstream sector will boost growth further.

Max Specialty Films “Innovation” is the Key



Max Specialty Films (MSF), a division of Max India Limited, manufactures BOPP films, is a specialty film player with fivefold increase in capacity in last five years (10KTA to 52 KTA), top line jumped to Rs. 700 Cr from Rs. 135 Cr. MSF offers wide range of BOPP specialized products e.g. Co-extrusion, Matt, Overwrap, Pearlized, Metallized, Thermal Lamination and Leather finishing films.

As per Mr. SK Mathur, CEO of MSF, India is witnessing robust BOPP demand growing ~ 20% triggered by Retail boom, Convenience packaging, small pouches and strong growth in FMCG. This is creating need for special films having superior barrier properties, shorter shelf-life & aesthetics.

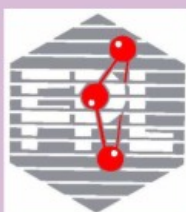
This is where MSF steps in. Mr. Mathur, credited this exponential growth to his developmental team who work closely with convertors, Brand owners/End-users, identifies needs and deliver ‘Tailor made’ films for superior performance. Some of our recent successes are “Cadbury Silk” with a silk look, Dairy Milk with a Paper look, Matt for “Dark Fantasy”, Ultra High Barrier Metallized, High Hot Tack, low COF films. Our special success was in creating a BOPP metallized Sandwich lamination film which could match all the properties of PET. We have been awarded six “India Star” and one “world Star” awards 2010 (at Dusseldorf) establishing our leadership in Innovations, “Mr Mathur proudly mentioned.

Reliance had been our partner since 1998 by developing new grades of Repol Polypropylene matching the end-product need. We enjoy very close relationship and appreciate the support from Reliance in not only delivering quality resins but more importantly we value their tremendous contribution in helping us identify new products & applications, quipped Mr Mathur.

Formulated Polymers Limited (FPL) promoted by two first generation entrepreneurs who were passionate about manufacturing quality plastics compound for Indian market. FPL had a modest beginning in engineering plastics in 1993 with just one production line. Today they have a series of state-of-art fully automated compounding facilities of 15000 MTA with two plants at Chennai. Being a compounder of engineering plastics that includes Polypropylene, Nylon -6,-66, -46,- 12, mPPO, ABS & PPS they cater to automobile, telecom, defence, electrical, white good and textile industries where niche grade of polymer compounds replaces high energy consuming metal and glass.

Mr V Sekar, Joint Managing Director of FPL is proud of their product quality, consistency and cost competitiveness. FPL received National Award 2009 for Best Entrepreneurship from President of India. Other awards include MMA Management Excellence Award 2011 from Madras Management Association, Prestigious PLASTICON Award 2009 for its leadership in R&D, Quality and Product Development from Plastindia Foundation, ISQA award for quality from Indian Electrical and Electronics Manufacturers Association.

As per Mr N. Mohan, JMD, we have a close business relationship with Reliance. Reliance Polymer team add tremendous value to our business through their innovative products & through awareness programme among end-users and thereby helped to increase demand, Mr Mohan added.



FORMULATED POLYMERS LIMITED “Innovation & Automation”



AGRICULTURE

AGRITECH



Agritech Asia, Mumbai (6th- 8th September 2011) and Agritech India, Bangalore (9th – 11th September 2011) provided good opportunities for RIL to exhibit emerging pre- & post-harvest Repol applications in agriculture sector. The highlight of our Mumbai stall was live display of Banana Tree with PP non-woven bunch cover, Grapes bunch cover & coverage of Cabbage field. PP ISBM Clear Bottles for Flavoured Milk, Leno, shade nets and Drip irrigations were displayed at Bangalore exhibition. Technical presentations were also made at both events.



RIL was a part of the Mega Horticulture Festival, Patna (10th to 13th August 2011) and displayed a whole range of Polymer Products for Pre & Post Harvest with emphasis on PP Non-woven as Fruit Cover & Crop Cover. One live Banana tree with banana bunch was covered with Non-woven fruit cover was displayed.



RIL Polymer Team participated at the Agro Industrial Meet (organised by FICCI, MCCIA & GoM), Pune (6th August 2011). We displayed Agro textiles, Leno, PWS, FIBC samples in the Stall. A presentation highlighting the uses of PP Non-woven for Crop Cover & Fruit Cover for Banana, Grapes, and Pomegranate was also made

TECHNICAL TEXTILES



CII took a novel initiative of holding a One Day conference on "Technical Textile" in the heartland of textile industry, Coimbatore (July 26 2011). RIL was invited at the conference to present a paper on "Investment Opportunities of Technical Textile in India". Key players from Technical Textile industry participated the conference



Ministry of Textiles & FICCI jointly organized an exhibition on Technical Textile namely "Technotex 2011" in Mumbai (25th – 27th August 2011). RIL participated the exhibition and showcased various applications of Polyester and Polypropylene in technical textile segment. Honorable Union Minister Sh Anand Sharma (Commerce, Industry & Textile) & Honorable Chief Minister of Maharashtra Sh Prithviraj Chavan visited RIL stall at the exhibition.

PACKAGING

PP Bottles, Rigid Containers, PWS, FIBC, Nonwoven



Reliance Industries Limited exhibited at Packplus South 2011, Hyderabad (1st to 4th July 2011) displaying emerging polyolefin packaging applications in the field of FMCG, Dairy, bulk, food grain and vegetable packaging. Special emphasis was provided on innovative Repol Polypropylene clear bottles for flavour Milk packaging. A two-day conference was also organized at the same venue. We presented a paper on emerging Polypropylene applications in packaging industry



Sugar Technology Association of India (STAI) & Deccan Sugar Technologists Association (DSTA) held their annual joint convention at Pune (2nd-5th July, 2011). RIL put up a stall displaying various products for sugar industry e.g. FIBC, Transparent PWS bags & PP Non-woven bags for retail packaging.

BOPP 2011 CONFERENCE



Applied Market Information (AMI), Europe's leading market research and publishing authority had organized the BOPP Conference 2011 in Austria, Vienna from 28th to 30th June 2011. Over 230 delegates from 26 countries including resin producers, equipment suppliers, BOPP film producers & end users attended the conference.

On the back of strong global demand growth, the BOPP industry is seeing rising level of investments in new capacity especially in Asia (led by India and China) and East Europe. A number of challenges was highlighted by speakers at the conference. Key amongst them is price volatility, waste management and increase in efficiency to reduce cost. India is showing fastest growth in BOPP sector. Current

Indian demand is just 5% of global demand, despite large population. However the scenario is due to change as realized by the domestic industry or capacities are slated to grow multifold, with strong international outlook compared to China.

The development of Indian BOPP film industry was addressed in the Reliance Presentation, delivered by Mr. Arvind Agharkar. Work done by RIL to develop BOPP grade for high speed lines, was elaborated with technical data. This development has supported the domestic BOPP industry to grow at current rate while establishing the grade also with leading international film producers



HEALTH-CARE Nonwoven Hygiene Products



Reliance Polymer Division and Indian Medical Association, Jalandhar jointly organized an awareness programme (29th June 2011) about the PP non-woven medical single-wear hygiene products. Officials from IMA and reputed Doctors from Jalandhar attended the seminar. RIL also organized a similar event for Doctors and faculty members of DY Patil Medical College at Kolhapur Medical College, Maharashtra (24th September 2011)

INFRASTRUCTURE PP-R Pipes



PPR plumbing Pipes are high heat resistant, high impact material and it is resistant to algae, easy to weld and have low co-efficient of friction due to smooth surface finish. Daman regional office arranged five training programme for ITI students in Gujarat. (10th & 11th August 2011) on benefits of PPR pipes over traditional material like metal. Principal of the Institute and faculty members appreciated the work done by RIL team.

PACKAGING Clarified PP



Delhi regional office conducted a Customer Meet on 20th July 2011 at India International Centre, New Delhi to appraise the emerging trend of PP packaging application in Retail and FMCG sector. Mr Sriman Banerjee of MNC major M/s GSK and Mr Kert Bruner of Kiefel, Germany addressed the gathering.

Repol SRX 100 is already a success in the marketplace due to its excellent clarity and low haze. Mumbai regional office organized a "Customer Meet" on 20th August 2011 to highlight the various new applications of SRX 100 in houseware, appliance and medical sector

AGRICULTURE

Fruit Cover, Crop Cover, Leno, PWS



Agriculture sector is our focus area of development. Reliance polymer team have organized four "Customer Meet" in rural hinterland of Jharkhand, Madhya Pradesh and Maharashtra, to demonstrate the benefit of polypropylene non-wovens in Crop cover, Fruit cover as well Leno and PWS for post-harvest management. Many agricultural scientists and progressive farmers were present during the demonstration of Repol Polypropylene products at Ranchi, Bhopal & Kusegaon. RIL is also networking with local non-woven and Leno suppliers to establish supply chain in rural market.

GEOTEXTILES

Polypropylene non-woven and woven Geotextiles are approved material world-wide for various infrastructure applications e.g. Geobags, Geotubes, filtration, soil reinforcement and many more. Our development team & local geotextile producers jointly organized eight "Customer Meet" with NHAI, PMGSY, PWD, MSRDC & State Highway authorities in HP, Orissa, Maharashtra, Gujarat & Karnataka. We have also presented a paper on the usefulness of PP Geotextiles to Engineers of Southern Command at their Pune Headquarter.



KOLKATA MEET



Kolkata Regional Office organized a Customer Get-together for an informal interactive session with our President Mr Warren Wilder. Leading customers from West Bengal, Orissa, Bihar & North-East took the opportunity and graced the occasion. Mr Wilder addressed gathering and gave a meaningful insight of Global and Indian Petrochemicals scenario. This was well appreciated by customers. After the presentation, he also interacted with the customers to familiarize with the polymer business in Eastern India.

TECHNICAL FILE

Block-Bottom Bags - New Horizon in Bulk Packaging

Indian Plastic processing industry has witnessed infusion of latest technologies from world leaders in plastic processing machinery segment to meet ever-growing challenges for product quality, innovation, automation, new product development & cost optimisation/ economic scale of operation. The latest addition to this list is state-of-the-art block bottom bag machines for sacking applications for packaging of industrial commodities like cement, fertilisers, chemicals as well as Foodgrain & sugar.

The technology although quite costly compared to conventional machineries, offers solution to diverse needs. End-users will be specially benefited by way of:

- Branding of their product
- Temper proofing & ensuring product quality
- Better logistics due to palletisation
- Faster & hassle free operation in automatic filling stations
- No pilferage of product



Plastic processors can benefit from complete automation in bag manufacturing process post weaving to offer finished bags requiring minimum human interface & multiple handling of semifinished products

- Higher value addition
- Optimisation & lower wastage in each stage of semi finished product.
- Less manpower requirement

Indian processors & end users also started realising the need for this technology in spite of higher machinery cost. There are 3 plants already installed. Additional 3 lines are expected to start up in FY 2012. Hence Indian woven sack industry is all geared up to embrace this new technology which is

expected to gain a fare share of the 1.2 million Tonnes woven sack market.

Flavoured Milk in Repol - A Packaging Innovation

In India more than 80 dairies produce flavoured milk, 300KL/day. Amul (GCMF) is the market leader with 60% share. Traditionally the flavoured milk is packed in glass bottles. Capitalizing on various advantages that PP bottles have over glass bottles, a project was taken with Amul to convert glass bottles to PP bottles.

We worked closely with M/s ASB-Nissei Japan to finalise the design of PP-ISBM bottle. Amul has now successfully launched flavoured milk in PP-ISBM bottles from Panchmahal Dairy, Gujarat.

The advantages of PP bottles over Glass bottles are:

- ✍ Light Weight 14gm Vs. 180 Gm
- ✍ Lower breakages
- ✍ Cost Effective
- ✍ Low Carbon Footprints

Yet another example of Concept to Commercialisation of a Repol PP application.



Repol New Approvals for Clear Applications

Repol Random co-polymer SRM 100NC & SRX 100 known for their excellent contact clarity, are now approved for "Transparent Containers" of Water Purifiers of Kent, Eureka Forbes and Bajaj Electricals.

In another development, a leading Refrigerator manufacturer of India has approved Repol SRM 100 NC for "Vegetable Tray" replacing Styrenics. SRM 100 NC offers superior optical and mechanical properties.



Flexible Cooler Bags - A New Application

One more application of PP Non-woven is flexible cooler Bag. This consists of PP non-woven bonded with aluminium foil and sandwiched with an insulating material. The construction thus formed is flexible and can be fabricated into cooler bags. The bag has a capacity to hold upto 10 Kgs of product with a handle to carry and a zip for closing.

The bag is quite suitable for carrying hot & cold beverages. It can also be used for carrying food items. The temperature change can be upto 5°C in 5 hrs.

Source: Chinawoven



EVENT CALENDAR

- ✍ Constru India, Mumbai, October 12-14, 2011
- ✍ Indian Road Congress, Lucknow, November 3-6, 2011
- ✍ ACE Tech, Mumbai, November 3-6, 2011
- ✍ Poly India 2011, Hyderabad, November 9-11, 2011
- ✍ Indian Convention on Masterbatches and Additives 2011
- ✍ (ICMBA), Mumbai, November 15-16, 2011
- ✍ India Plumbing Exhibition & Conference, Delhi, November 18-19, 2011
- ✍ India Converting Show, Mumbai, November 23-26, 2011
- ✍ ClearPlast 2011, Mumbai, November 23
- ✍ India Packaging Show, Delhi, December 7-10, 2011




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