NEWS

Sri Lanka for joint efforts to boost mutual trade

A high powered 17-member Sri Lankan delegation had B2B meetings with their Pakistani counterparts here at the Lahore Chamber of Commerce & Industry. The delegation was headed by Prasanna Jayasinghe while LCCI President Sheikh Muhammad Arshad, Vice President Nasir Saeed and Executive Committee Members also spoke on the occasion. LCCI President Sheikh Muhammad Arshad and Sri Lankan delegation agreed to make joint efforts to enhance exiting trade volume.

Leader of the Sri Lankan delegation Prasanna Jayasinghe said that there is a vast scope for the expansion of two-way trade between Pakistan and Sri Lanka in the presence of Free Trade Agreement (FTA) between the two countries to further strengthen their multifaceted and multi-sectoral cooperation in the fields of herbal medicine, gem & jewelry, culture, commerce & trade, science and technology and tourism. He was full of praise for Pakistan government and people for their moral support to Sri Lanka on every issue. He said that Sri Lanka offer huge opportunities in gem and jewelry, rubber, garments, hospitality, services and there is a need to take advantage by liberal trade policies of the Sri Lankan government.

The LCCI President Sheikh Muhammad Arshad said that the ideal and friendly relationship between Pakistan and Sri Lanka is based on historical and cultural links as well as common understanding on a wide range of bilateral, regional and international issues.He said that Pakistan and Sri Lanka are members of SAARC and are enjoying good cordial relations. He said that both countries are old trade partners and Sri Lanka ranked 19th in the export destinations of Pakistan.

PepsiCo franchise joins hands with Sidel

Pakistan Beverage Limited has purchased Standalone SBO8 Universal2Eco Blower for Carbonated Soft Drinks from Sidel, a leading global provider of PET solutions for liquid packaging, to increase its production and meet the market demand said a press release. This is the second blower that PBL has purchased from Sidel in less than a year.

Pakistan packaging giant invests in high-tech sheetfed offset technology from KBA

First highly automated Rapida 106 with double coating and cold foil for Saima Packaging Pvt Ltd

In January 2016 KBA-Sheetfed will be delivering a seven-colour Rapida 106 raised press with double coating for both UV & Conventional Printing on board and plastics, and a cold-foil transfer system to Saima Packaging Pvt Ltd in Karachi/Pakistan. The company, founded by Muhammad Yousuf Tinwala, today is one of the country's largest producers of high-quality packaging.

Upswing in Pakistan: Bosch establishes operations and opened its first office in Lahore

Bosch continues to expand its activities in the Middle East: by setting up an office in the country's second-largest city, Lahore, the supplier of technology and services has opened its first location in Pakistan. The company will focus initially on the sale of power tools and security systems as well as products and solutions from the Automotive Aftermarket division. "Pakistan's current government plans to strengthen infrastructure and the energy sector. This will have great appeal for foreign investors," said Ina Lepel, the German ambassador to Pakistan, at the opening of the new Bosch branch. "Bosch's activities are an important milestone on the path toward bilateral business relationships with Pakistan." The country is now one of the region's emerging nations.

With annual population growth of more than 2 percent, Pakistan has one of the highest growth rates in Asia. From 1950 to 2015, the population grew approximately fivefold, to 190 million inhabitants. In comparison, Germany has a population of around 82 million, while Japan has 127 million. Pakistan is the sixth most populous country in the world, making it a very attractive market indeed for the Bosch Group. "On account of the growing population and the low median age of 22, we see good business opportunities in Pakistan for Bosch in the long term," said Steven Young, president of the Bosch Group in the Turkey and Middle East region. According to the International Monetary Fund, Pakistan's economy is likely to post steady growth of around 5 percent per year up to 2020.

The opening of a branch office in Pakistan is part of Bosch's consistent and long-term growth strategy in the Middle East. The company is looking to seize the region's potential while supporting the local economy with expertise. The Bosch Group has been active in the Middle East for over 90 years and is present in 16 countries in the region today. Business there developed positively in 2015. In 2014, Bosch generated sales of around 240 million euros in the Middle East.

Economic Partnership between China & Pakistan accelerated trade activities

Head of the 5-member Chinese delegation Chao Ni has said that Chinese investors are keen to invest in Pakistan. Economic Partnership between the businessmen of the two countries would not only help tap huge potential exists in China and Pakistan but would expedite growth.

He was talking to the LCCI President Sheikh Muhammad Arshad and Senior Vice President Almas Hyder at the Lahore Chamber of Commerce & Industry. Members of the Chinese delegation Li Zheng, Zhou Guangyan, Wenhong Zhan, Fan Shengci and LCCI Executive Committee Members also spoke on the occasion.

Chao Ni said that China-Pak Economic corridor is an ample proof of China's seriousness in economic uplift of Pakistan. He said that both the Pakistan and China had huge potential to increase the bilateral trade as the existing volume of two-way trade between the two countries is very small when it is compared with the total Chinese business with the world.

The LCCI President Sheikh Mohammad Arshad said that China is a sincere friend of Pakistan and always extended best cooperation. He said that China is also a very important partner in Pakistan Economic Development and bilateral trade. The involvement of Chinese enterprises, both in terms of Technical and Financial assistance in several development projects is reflective of our cordial relations based on mutual trust and sincerity. He further said that China is one of the largest trading partners of Pakistan and it is expected that bilateral trade between Pakistan and China

will touch the figure of $ 15 billion within the next few years. Although Pakistan's exports to China have been gradually increasing, the trade has always been in favor of China.

The balance of trade between the two countries is heavily in favour of China, which requires to be turned into a win – win situation for both the countries. Major imports of Pakistan from China include iron, steel products, tyres, tubes, chemical, medical, pharma products, fertilizers, yarn and thread of synthetic fiber, railway vehicles, spare parts hand tools and hardware products etc.

Clariant healthcare packaging to build new plant to support pharmaceutical industry in India

Healthcare Masterbatches Healthcare Packaging Global

- CHF 10 million investment in Tamil Nadu State
- Healthcare Packaging plant will produce moisture-control products
- India's pharmaceutical packaging market is large and growing

Clariant, a world leader in specialty chemicals, today announced plans to invest CHF 10 million in a new Healthcare Packaging manufacturing plant in Cuddalore in Tamil Nadu State, located about 25 km from the city of Puducherry. The plant will manufacture Clariant's market-leading moisture control products to support the growing pharmaceutical packaging market in India.

"India is the largest provider of generic drugs globally," says Ketan Premani, Head of Clariant Healthcare Packaging Sales in India, "making it a key market for Clariant's desiccant products. We want to ensure that we serve our customers here as directly and efficiently as possible. When the plant is complete, they will now have the ability to procure Clariant's global-standard products directly produced in India."

Clariant Healthcare Packaging, a member of Business Unit Masterbatches, manufactures a full range of controlled atmosphere packaging solutions including pharmaceutical desiccants, equilibrium sorbents, adsorbent polymers, oxygen scavengers and pharmaceutical closures and containers. The new plant in Cuddalore will initially produce desiccant canisters and packets, which are inserted into pharmaceutical packaging to control moisture and protect the stability of the medicine during shelf life. The desiccant production area will be Clean Room Class 100,000 and certified ISO 8. It will be compliant with all relevant cGMP and US FDA standards.

ELIX Polymers celebrates 40 years of experience in ABS manufacturing

The chemical company ELIX Polymers celebrates 40 years on the market. Thanks to numerous investments and innovations, it has become one of the main ABS manufacturers in Europe.

With its plant in Tarragona, Spain, and with a production capacity of 180 kilo-tonnes per year, ELIX has strived, especially in recent years, to be the one of the leading companies in Europe for ABS specialities. It is a customer-oriented company which offers personalised service and a wide selection of products whilst being committed to environmental sustainability and promoting the professional development of its more than 250 employees.

Based upon its continuous improvement policy, ELIX has developed a strategic plan to offer added value to its customers in terms of the SERVICES offered. This policy is based on key factors like flexibility, closeness with clients, proactivity, global scope and custom-tailored services.

"We are proud of the things we've achieved and thankful to everyone who has trusted our company throughout these 40 years. The best way to celebrate is by taking on new challenges. That's why one of the strategic steps has been to renew our Corporate Identity and strengthen our communications policy to emphasise what sets us apart: the tailored services that ELIX offers," states Wolfgang Doering, CEO.

AFS – Breathable Perforation

Machines for the cost-efficient production of breathable packaging, filters and gas membranes

HOT NEEDLE PERFORATION (PM 5)

To maintain the tear strength of thermoplastic foils after perforation.

Many thermoplastic foils (e.g. PP) must be hot-perforated to ensure a high tear-strength. An electrically-heated needle roller, driven at web speed in combination with a heat resistant counter roller guarantee completely round holes with a clean well-formed rim.

This process fulfils the highest aesthetic demands, combined with optimum functionality.

COLD NEEDLE PERFORATION (Spiked Roller & PM 10)

Conical needles produce holes with a conical profile increasing air and water permeability of PE foils

Conical needles pierce the web material (e.g. paper, thin metal foils, PE foils). The grooves in the counter-roller line up perfectly with the needles.

Sandretto goes forward with 3D printing

After the launch during the last Plast Fair in Milan, Sandretto started in Pont Canavese the production of 3d printers, considering to make 25 printers a day, 6000 in a year. For this purpose, an assembling line has been set up, where ten workers are already at work.

The printers, according to the diameter of the heating platen, are available in 3 sizes (250, 400, 700), designed as Delta robot, able to operate using every kind of plastic filament (FDM technique). Sandretto plans to extend the selection with new Cartesian models dedicated to the serial production.

The company states that despite the price – oriented to a "consumer" approach – the printers are designed for a "professional" target, guaranteeing performances, reliability, toughness and a top-quality firmware.

Keeping a forward-looking attitude, Sandretto settled an agreement with the University of Pavia (Department of Civil Engineering and Architecture) to enhance the research in medical applications.

The printers presented at Plast2015 are some of the largest and fastest FDM Delta machines on the market and show many remarkable evolutions in terms of firmware, function control and error management. Following the same kind of technology, Sandretto will develop a full series of Cartesian printers dedicated to mass-production, and after that, a full series of products dedicated to polymerization and laser sintering of powders.

Exxonmobil Chemical Extends Vistamaxx Polymers Portfolio With A New High Melt Flow Grade For Enhanced Processing

- Potential increases in productivity and lower processing costs
- Designed for polypropylene modification and filler masterbatch applications
- Suitable for food packaging applications that use thin wall injection molding

ExxonMobil has extended the portfolio of its Vistamaxx™ performance polymers with the introduction of Vistamaxx 6502. With

a high melt flow rate of 48, Vistamaxx 6502 can enhance the processing efficiencies of polypropylene compounds and filler masterbatch applications to deliver potential increases in productivity and processing cost reductions. The new grade is U.S. Food and Drug Administration (FDA) and European Union compliant for food contact applications, and is on the Chinese Positive List for resins permitted in food packaging products.

In polypropylene compounding applications, the use of Vistamaxx 6502 can enhance the flow properties while improving the physical property balance of the compound. Flexibility can be increased, impact strength improved, stress whitening reduced and clarity maintained. Used with existing compounding equipment, it can deliver cost-effective solutions as it enables lower melt pressures and reduced power consumption for energy savings. In addition, the need for processing aids may be eliminated.

"Vistamaxx 6502 is well-suited for polypropylene rigid food packaging applications, especially those that use thin wall injection molding. Beverage cups and food containers are two examples," said Andre Dallaire, Vistamaxx molding and extrusion segment manager, ExxonMobil Chemical. "The new grade could provide growth potential for our customers."

As a polymer carrier in masterbatch applications, Vistamaxx 6502 enhances flow while allowing high filler loading of materials, such as calcium carbonate. This enables compounders to differentiate their products and develop cost-effective solutions for customers.

Solvay's Torlon® PAI Delivers High Strength, Wear Resistance in High-Performing Clutch System from FTE Automotive

Torlon® PAI used to fabricate sealing rings and locking mechanism in FTE Automotive's innovative new dual concentric slave cylinder

Solvay Specialty Polymers, a leading global supplier of high-performance thermoplastics, announced today at the 14th annual CTI Symposium (Booth H06) that Solvay's Torlon® polyamide-imide (PAI) technology forms several key components in a high-performing dual concentric slave cylinder (dCSC) developed by FTE Automotive, a premier producer of automotive drivetrain and brake systems. Signaling the first time Solvay's Torlon® materials have been specified for this type of application, FTE Automotive's dCSC forms the heart of the new SGM X44F Dual Clutch Transmission from a leading automaker, SAIC General Motors Co., Ltd. The transmission was successfully launched on the 2015 Chevrolet Cruze platform for vehicles produced and sold in China.

The critical core of an automotive clutch system, concentric slave cylinders are positioned directly around the drive shaft and on the clutch. They are consequently subject to extreme loads each time a car shifts gear. FTE Automotive offers various CSC designs for light and heavy commercial vehicles that, depending on the application, are more typically fabricated from aluminum or engineering polymers.

"The intrinsically high wear-resistance of Torlon® PAI makes it a natural candidate for seal rings and other high-wear applications in both dual clutch and automatic transmissions," said Brian Baleno, global automotive business development manager for Solvay Specialty Polymers. "A parallel trend is the increasingly frequent replacement of needle bearings with bearings made of Torlon® polymers. This conversion allows space savings of about 2.5 mm, which allows engineers to downsize metal castings and thereby achieve significant weight reduction without compromising on performance or reliability."

Both hydraulic chambers within FTE Automotive's dCSC each incorporate two seal rings made of Torlon® 4275 to ensure reliable and durable performance over the transmission's lifetime. The seal rings have small cross-sections with relatively large diameters. Yet, due to Torlon PAI's elongation properties, they maintain flexibility for easy assembly.

Dow Expands PacXpert™ Flexible Packaging Technology Reach in Asia with Second License Agreement in Japan with Takigawa Corporation

Dow Packaging and Specialty Plastics, a business unit of The Dow Chemical Company (NYSE: DOW) announces the second PacXpert™ packaging technology collaboration in Japan with Takigawa Corporation. This license agreement comes a year after the first partnership with Kyodo Printing in November 2014, and will allow Takigawa Corporation to produce the packaging for a wide range of applications to their customer base across Asia Pacific through its manufacturing sites in Japan and Vietnam. This marks the 11th licensee agreement for PacXpert™ packaging technology globally, and the third in Asia Pacific.

Takigawa Corporation is a leading flexible packaging converter in Japan, and provides high-end packaging for a wide range of applications for both liquid and granule content for food and non-food related products. With the agreement, Takigawa Corporation will advance the reach of the award-winning PacXpert™ packaging technology across Asia Pacific to their distribution markets in Australia, Indonesia, Japan, Thailand and Vietnam.

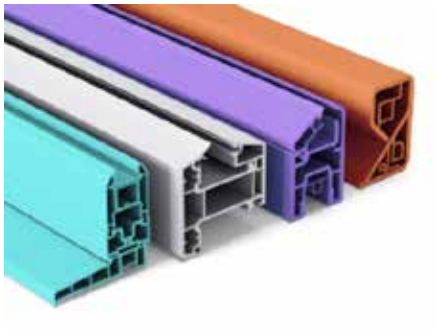
"We are enthusiastic about bringing our innovative PacXpert™ packaging technology to various parts of Asia Pacific. Japan is a sophisticated market, with high standards in flexible packaging. A second licensee within a year is evident of the ability of PacXpert™ to provide a valued and innovative solution to the country. The consistent growth of the flexible packaging industry in the region has seen the standards and demands of packaging significantly raised," said Mark Saurin, commercial vice president for Dow Packaging and Specialty Plastics, Asia Pacific. "By partnering with Takigawa Corporation, it allows Dow to meet the rising expectations of the consumers, access new markets with the technology, and offer customers more choices in sustainable packaging with greater convenience and functionalities."

Nordson pelletizing and crystallizing system plays central role at Lotte Chemical's world-scale pet resin plant in England

New On-Site Video Shows Nordson's Energy-Saving BKG® CrystallCut System in Operation, along with Kreyenborg™ POLY Screen Changer for Continuous Melt Throughput

A new video shows how melt filtration and pelletizing technologies from Nordson Corporation conserve energy and enhance productivity at the 600 ton per day PET resin plant of Lotte Chemical UK Ltd., Nordson announced today. Commissioned late in 2014, the world-scale plant at Lotte Chemical's Redcar, England facility includes three pelletizing / crystallizing units based on Nordson's patented BKG® CrystallCut™ process, which saves energy by retaining heat from the molten polymer and using it for crystallization. The installation also includes a Nordson Kreyenborg™ POLY screen changer, whose quick-change operation makes possible filter screen replacement while maintaining continuous production. Conventionally, PET pellets are cooled after pelletizing, then reheated for crystallization. The video shows how the CrystallCut process eliminates cooling by rapidly transporting pellets from the cutter face of the die through hot water

and directly into a centrifugal dryer. The pellets exit the dryer at a temperature of 140 to 150 °C and are uniformly crystallized. "For a modern, world-scale PET plant operating '24/7,' we estimate that the CrystallCut system can save millions of Euros per year in energy costs by combining pelletizing and crystallizing into a single integrated process without a cooling step," said Ralf Simon, Nordson BKG managing director. "And because the retained heat causes pellets to crystallize from the inside out, the result is an improved crystalline structure that requires less energy for re-melting."



New rigid PVC for outdoor profiles is optimized for impact strength, surface finish, and flow properties

For Apex® RE-9218 Outdoor Extrusion-Grade PVC, Teknor Apex Provides Custom Colors, Process Development Support, and Outdoor Testing

A new rigid PVC compound for outdoor applications provides the excellent weather- and UV-resistance of industry-established grades along with superior performance in processing and fabrication and improved surface appearance, it was announced today by Teknor Apex Company. Apex® RE-9218 compound is an optimized and competitively priced alternative to existing rigid PVC products that are designed to resist the UV light, heat, and moisture encountered in outdoor applications, according to Michael J. Renzi, Vinyl Division business development manager. "The enhancements provided by Apex RE-9218 include improved flow properties for intricate profile structures, greater Izod impact resistance for post-extrusion cutting and fabrication, and a smoother, more appealing surface finish," said Mr. Renzi. "In addition, Teknor Apex supports this new product with a wide range of customized services, including advanced real-time weatherability testing at several Teknor Apex on-site laboratories." As a custom compounder, Teknor Apex can supply Apex RE-9218 compound in specialty colors. In a fully equipped laboratory, the company can assist with development validation by replicating the customer's process and die design.

Market forces driving Pharma Packaging changes

Strategic moves by a pair of German pharmaceutical packaging giants are shedding light on drug packaging trends related to bottles vs. blisters and glass vs. plastic syringes. And such trends are worth watching for a global pharma packaging sector that Freedonia Group projects will grow by 6.5 percent annually to more than $101 billion in 2019.

Uhlmann Group, long established as a king of blister packaging machinery, at the recent Pack Expo Las Vegas trade show was promoting, of all things, a compact bottle-filling machine – or "modular Integrated Bottle Packaging Center," dubbed the IBC 120 – for solid-dose products.

And separately, Gerresheimer Group – traditionally best known as a maker of glass containers for the pharma and cosmetics sectors – continues to push strongly into plastics, particularly cyclic olefin polymers (COP) for prefillable syringes.

Neither Uhlmann's interest in bottles nor Gerresheimer's in plastics packaging is new, of course, but their increased emphasis on what, for them, is not traditional technology, is noteworthy and reflects some interesting trends in their respective sectors.

Nano technology in Doctor Blades

PrimeBlade 900 Nano has been developed by PrimeBlade® Sweden together with partners in Nano technology, to treat and produce different steel qualities to optimizing the properties and performance.

The microstructure of the PrimeBlade 900 steel consists of finely distributed, small carbides, giving it an exceptional wear resistance, reduced friction and higher printing performance.

PrimeBlade 900 Nano is produced by using the latest Nano technology, with the idea of not using the ceramic & nickel coatings that are used today; resulting in none of the side effects this can have on environment, brittleness and other issues.

It´s a revolutionary patented metallurgic-treated steel blade which will extend blade life to hitherto unseen levels in non-ceramic coated blades in both flexo and gravure applications. The blade will outlast any non-ceramic blade on the market, without any of the brittleness associated with long life blades, with no extra consequent anilox roll/ gravure cylinder wear and at a competitive price.

Ampacet's Telford plant brings colour and capacity to UK

Global Leading Producer of Masterbatch, Ampacet, has recently increased its capacity in the UK at its production site in Telford.

The site, which is accredited with ISO 9001, ISO14001 and OHSAS 18001 and has a capacity of approximately 2000 tonnes in colour, is designed to give extended flexibility on production lines, as well as shifts, to suit customer demands.

"With the new sales team setup that has encountered great success during 2015, the UK plant brings the domestic presence to the region focusing on providing a quality product and service with fast colour matching services, on time deliveries and guaranteed made to stock products in place," explained Caroline Scheydecker, Ampacet's Senior Marketing and Communications Coordinator.

The company has grown considerably since its formation in 1937, now operating 24 sites globally, producing in excess of 400,000 tonnes annually and selling its range of products in more than 90 countries.

"Ten years ago we were perceived as a commodity player. We were seen as a company that could only offer black, white and additive Masterbatch. Now, however, we are not only seen as a company offering a full product range; black, white, additives and colour Masterbatch, but also one that adds value and creates specialty products for our customers," Scheydecker added.

The company says its success is due to its ability to partner suppliers and customers, as well as to create Masterbatch formulations that help bring products quickly to market and satisfy the needs of its customers to the best of their ability.

AV Flexologic - Automatic plate mounting machines

For the past 30 years AV Flexologic has been the driving factor behind the biggest innovations in the flexographic prepress and especially mounting industry.

After inventing the mounting cameras, AV Flexologic now has a patent on automatic mounting using image recognition. The (semi-) automatic mounting machines are more accurate and precise than any operator could be. AV Flexologic continues to innovate for the benefit of its customers.

One of the new inventions of AV Flexologic are their **Automatic plate mounting machines**. These machines mount the photopolymer plates making use of AV Flexologic's patented image recognition software. The accuracy is impeccable (down to 5 microns (0.005mm) and the machine is very fast. Consequently these machines diminish the printing press downtime due to mounting and improve the quality of the prints tremendously. Due to this value creation these machines are the most popular machines in AV Flexologic's product portfolio. AV Flexologic's Semi-Automatic Mounting Machine is the SAMM and the FAMM is the completely automatic mounting machine.

The company was able to recoup their investment in a few months. This customer mounts 22000 - 24000 sleeves per year; Downtime savings and operator savings in the press drive the return on investment.

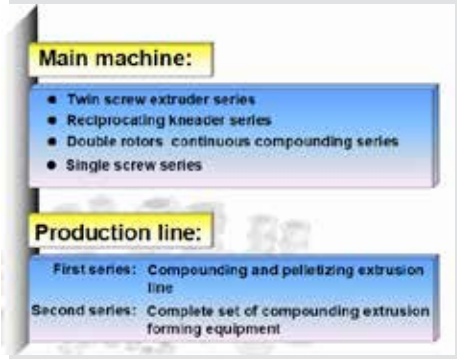
Good news for Pakistan Market is that recently AV Flexologic have started collaboration with K-Group of Companies as their main representative and customers can have the support available for AV Flexologic products locally as well.

DuPont and Dow announce merger to become DowDuPont

The Dow Chemical Company and DuPont have made official the announcement that they are to combine in a merger of the two companies. The new company, which will be called DowDuPont, will split into three independent, publicly traded companies in the areas of agriculture, materials science and speciality products. Upon closing of the transaction, the combined company would have a combined market capitalisation of approximately $130 billion at announcement. The merger transaction is expected to close in the second half of 2016, subject to customary closing conditions, including regulatory approvals, and approval by both Dow and DuPont shareholders. The subsequent separation of DowDuPont, which the companies intend to pursue, would be expected to occur 18-24 months following the closing of the merger.

Jiangsu Cenmen and Its New Developed Technologies

Contributed by Albert Wang



Jangsu Cenmen Company was founded in 1999, a private enterprise and professional manufacturers of complete extrusion equipment, in 2014 annual sales is more than two hundred million RMB.

Main products co-rotating twin screw extruder, reciprocating kneader, double rotors continuous mixer.

There are three major aspects of the Company, the first one is the traditional compounding equipment, which we currently have three major categories: single and twin screw extruder, reciprocating kneader, continuous mixer; second is our ONE FORMING technologies.

I. Traditional Compounding Field

In the traditional polymerization and compounding industries, such as color master batch, reinforcement, high ratio organic additive filling, engineering plastics, polymer alloying and blending, TPE compounding, TPU polymerization, etc. We have the three major machines to fulfill different kinds of needs in different markets, and the brief layout is as follow, and we also can offer TURNKEY project including feeding system, metering system, and also many kinds of pelletizing system to packing system.

II. One Step Forming Technology

By using this technology, we can get lots merits as:

* Combines the polymer compounding pelletizing and product forming industry, adopts new equipment and technology to realize the integration of the two major process of compounding modification and extrusion forming process with continuity and automation control. Shorten and simplify the process dramatically, reduce plant occupancy and labor cost, cut down the energy consumption and production cost tremendously, at the same time, reduce the heating experience of polymer and improve and enhance the comprehensive quality of final products.
* Extend to the up steam raw material conveying and metering system, adopt the advanced continuous multi and gravimetric feeding to realize the seamless integration of metering system and the compounding unit.
* Integration and interaction with other forming technology continuously. Including but not limited to all kinds of functional sheet, panel, pipe and film products and multi-layer co-extrusion, new type hollow composite sheet & panel, glass fiber sheet & panel, on line spinning forming, etc.

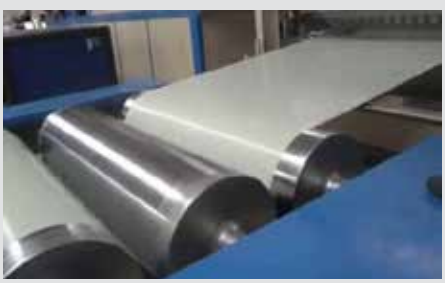
III. Two Examples of Our One Step Forming

A. LFT-D New Technology for Reinforcement of Glass Fiber/Carbon Fiber

In the traditional process of reinforcement, people will make the compounding of polymers with fibers (glass or carbon) first, and the go to the injection step to make the final product, but now, we use one step forming to form the product with many advantages. The basic idea is to using two extruders to conduct this task, the first extruder will melt and homogenizing the polymer, and the second will accommodate the fibers .

B. New Process TPU Toe Puff Production Line

In the traditional process of Toe puff production, the sheet is a composite one with ABA structure, and more than 3 minutes heating will be need when making the shoe parts on the production line, this can not meet the high speed production requirements, so, right now, a new process was invented,In this process, we will use two kinds of material and we can call A and B material, A material is most of TPU materials, and B is majorly of hot melt materials, they will make the pellets with extruder first, and then make the co-extrusion to form the sheets for next step, this process can say the manufacture time and enhance product quality.



SPOTLIGHT ON EVENTS

Shaping New Trends for Packaging Industry- Versatile, Smart and Sustainable

Plastics packaging has occupied over 30% of share in packaging market, thanks to its outstanding properties such as lightweight, versatile, anti-corrosive, anti-abrasive, and easy to process properties and more that other materials cannot match. In the next few years, safe, environmentally friendly, lightweighted, multi-functional and intelligent packaging will remain in mainstreams. Packaging products which feature multiple characteristics such as anti-microbial, high temperature resistant, UV-ray resistant, high barrier, biodegradable and recyclable will be at market's focus.

Many of the key players involved in advancing these materials and processing technologies will be among those exhibiting in CHINAPLAS 2016 next 25-28 April in Shanghai. 3,200 exhibitors will be categorized into 16 theme zones, such as Automation Technology; Plastic Packaging & Blow Molding Machinery; Extrusion Machinery; Film Technology; Recycling Technology; Chemicals & Raw Materials; Color Pigment and Masterbatch, etc.

Leading players in plastics packaging over the world are flexing their muscles to push the technologies into limits in order to meet the consumers' needs in this fast changing packaging world. Below are some of the examples.

It is expected that some 140,000 professional buyers from 150 countries and regions will visit the show. In the past exhibitions, it had attracted a number of leading packaging companies and endusers from food & beverage and daily chemicals to attend, such as Alcan, Amcor, Amway, Aptar, Beauty Star, Bemis, Coca Cola, Colgate, Essel, FSPG, Lee Kum Kee, Nongfu Spring, P&G, Rex, Rexam Plastics, Sealed Air, Wrigley, among other famous enterprises.

Plastics & Rubber Vietnam 2016: Arburg to exhibit high-end packaging machine

- In focus: efficient packaging technology
- Specific: hybrid, high-performance machines in "Packaging" version
- Challenging: 24 screw caps in three seconds

Lossburg. At the Plastics & Rubber Vietnam, which takes place in Ho Chi Minh City from 1 to 3 March 2016, Arburg will present an efficient production solution based on a hybrid Allrounder from the high-performance Hidrive series, thus placing the focus on the packaging industry. The high-speed Allrounder 570 H in the "Packaging" version will demonstrate the cost-effective production of drinks bottle closures at exhibition stand G 19 in Hall A1, A2.

"With a hybrid Allrounder 570 H in the "Packaging" version, we will be presenting an injection moulding application designed for high volume production in the packaging industry at the Plastics & Rubber Vietnam 2016. This efficient high-speed machine produces 24 water bottle closures in only three seconds," explains David Chan, Managing Director of Arburg Singapore and responsible for the entire ASEAN region.

ARBURG 30441-02 570H Packaging

The hybrid Allrounder 570 H in the "Packaging" version, which is specially designed for the high demands of the packaging industry.

Polymer foam goes global

There are strong globalisation trends in the polymer foam industry, particularly in the field of construction insulation foams where the leading companies such as Dow and Armacell have built production plants worldwide, and a similar pattern can be seen in the automotive suppliers industry, while across packaging there is a move towards worldwide supply too with companies buying up and incorporating suitable local businesses in order to gain market share. In each region there are different standards and regulations, for example the fire retardancy tests vary between Europe and North America for insulation. A whole range of foam manufacturers will be represented at AMI's international Polymer Foam 2016 conference, to be held on April 5-6 at Liberty International Airport in New Jersey, USA. The Managing Director and R&D lead at Armacell will be speaking in New Jersey in April 2016 on construction foam properties and Songwon will outline the additive selection and use of the latest polymeric flame retardant for XPS.

Foam materials are seeing a renaissance as all areas of industry look to improve production economics by reducing the volume of resin required, plus the added bonus of light-weighting, which reduces transport costs for all types of application and also reduces fuel consumption in vehicles. There will be a paper at the conference from Volvo focused on lightweight material development for heavy duty trucks. The profiles around automotive glazing are extruded elastomeric foams: ExxonMobil Chemical has developed new formulations for EPDM in this application. Automotive interiors and thermal management is another automotive application and Michael Sproule will talk on this topic from his extensive background in a division of Ford, which became Visteon and is now owned by the South Korean company Hanon Systems.

The challenge is to get the foam processing right and controlled for each material type and for each component shape. ZOTEFOAMS is the world leading manufacturer of crosslinked block foams and is currently building new plant in Kentucky, the Director of Technology and Development will be speaking on foam technology at the AMI Polymer Foam 2016 event in NJ in April. Cabot Microelectronics uses foams and in one recent project worked on the microcellular foaming of thermoplastic urethane (TPU) and styrene maleic anhydride (SMA) blends. The University of Toronto leads the field in physical foaming technology and Professor Chul Park has looked at many aspects of foam including a study of bubble nucleation in high pressure molding. Injection molded parts may need to be adapted for the material flow in structural molding. Milacron-Uniloy produces specialty low pressure injection molding (LPIM) machinery for manufacturing large structural foam parts. Trexel has a chemical foaming agent that enables light weight injection molded parts with an aesthetically acceptable surface.

There are opportunities available to join leading experts to debate foam manufacturing, markets and performance at AMI's Polymer Foam 2016, April 5-6 in New Jersey, a key center of plastics manufacturing in the US.

Flexible packaging experts to gather in singapore

The Asia Pacific region is one of the most exciting and dynamic markets for flexible packaging in the world and the signing of the Trans Pacific Partnership trade agreement is expected to create further opportunities for packaging manufacturers and suppliers particularly in South East Asia.

Singapore, one of the signatory countries of the free trade deal, is playing host to AMI's third Specialty Packaging Films Asia conference, being held from 15 -17 March 2016 at the Swisstel The Stamford. The extensive programme will cover the very latest innovations in raw materials and film technology to meet the demands of customers in Asia and beyond, as well giving delegates

an understanding of how the industry is evolving and the possibilities that are emerging from these developments. Setting the scene for the conference, AMI Consulting will open with a review of the latest trends shaping new market opportunities.

Sustainable consumption is a high priority across the supply chain. At the conference, Nestlé will discuss the brand owner's perspective on the use of flexible packaging for maintaining product integrity and safety whilst enabling the reduction of food and packaging waste. Playing a part in this are innovations in speciality films, coatings and barrier properties to improve shelf life and Cosmo Films, Sealed Air, Milliken and Michelman amongst others will explore these areas in more detail. End of life options for packaging will also be examined with presentations from Starlinger and Dow Chemical.

Reifenhäuser Blown Film and Mamata Extrusion Systems will show how their blown film line technologies combine the properties of different polymer materials for the production of customized, economical and source optimized films. Cast film developments for specialty applications will be shown by Futamura Chemical and Scientex Great Wall while Singapore's Institute of Materials Research and Engineering will look at advanced polymer composite packaging.

AMI's Specialty Packaging Films Asia is relevant for all members of the supply chain including brand owners, retailers, packaging companies, researchers, materials and manufacturing experts. In addition to delivering quality papers, the conference also offers superb and cost-effective networking opportunities with its extensive table top exhibition area.

Borouge illustrates its latest plastics solutions supporting infrastructure applications

Borouge, a leading petrochemical company that provides innovative, value creating plastics solutions, showcased its portfolio of sustainable and value-added plastics solutions for the civil infrastructure applications and construction industry at the Big 5, an international building and construction tradeshow, held in Dubai from 23-26 November 2015.

The Big 5 fair provided Borouge with an opportunity to demonstrate its wide range of polyolefin products for water, gas and heating piping systems for domestic and industrial buildings and constructions, in addition to wire and cable solutions.

"Big 5 is a key event for Borouge to meet with our partners in the water and energy industry value chain. An ideal platform to share thoughts and ideas on the latest trends moving the industry forward as well as to learn about successes achieved and best practises from the leaders in the industry," said Hazeem Sultan Al Suwaidi, Senior Vice President Middle East Africa (MEAE), Borouge.

At Big 5, Borouge offered a range of high quality PP-R, PP-RCT and PEX polypropylene and polyethylene materials for the manufacture of hot and cold water and gas pipe systems. These corrosion resistant materials, which are rapidly replacing metal pipes in buildings throughout Europe, Asia and the Middle East, provide long maintenance free operation at high temperatures.

Muntajat and Qatar's producing entities reinforce Qatar's leading position at the region's largest downstream event

Muntajat (Qatar Chemical and Petrochemical Marketing and Distribution Company Q.J.S.C.) and Qatar's producing companies returned to the Middle East's largest chemical and petrochemical forum to represent and promote the State of Qatar's downstream industry. Muntajat was joined this year by Qatar Fertiliser Company (QAFCO), Qatar Petrochemical Company (QAPCO) and Qatar Chemical Company (Q-Chem).

The GPCA Annual Forum ran from the 17 to the 19 of November in Dubai, UAE. The event marked an important milestone for the Association as it celebrated its 10th edition. The Muntajat delegation, led by the company's Chief Executive Officer, Mr. Abdulrahman Ali Al-Abdulla, joined industry leaders and specialists from more than 42 countries to discuss the latest development in the industry under the forum's theme of 'Building on Achievements- Enabling Continued Success in the Changing Chemical Landscape'.

Qatar's representatives welcomed customers and industry peers as they visited the Qatar pavilion to learn more about Qatar's chemical and petrochemical sector.

More than 350 participants at the ENGEL trend.scaut in Shanghai

With more than 350 participants from China and all of Asia, the ENGEL trend.scaut in late October in Shanghai was a great success. For the first time, the international automotive conference hosted by ENGEL took place in Asia. The current and future challenges for plastics processors in China and Asia were discussed and innovative solutions were presented in the context of a local perspective and with international expertise. The main focus was on the topics of lightweight design and energy. The field of lightweight design can be surprisingly diverse – something that once again became clear at the ENGEL trend.scaut. "In Asia and particularly in China, there is already a broad spectrum of lightweight design technology in use", as pointed out by Michael Fischer, Sales Manager Technologies at ENGEL. For instance, in addition to composite technologies, the presentations held in the Shanghai City Theatre also discussed chemical and physical foaming, injection-compression moulding, thin-walled injection moulding, glazing solutions on the basis of polycarbonate and the use of natural fibres for reinforcement. Sample parts were presented illustrating each kind of technology. Among others, Shuwen Liu of the Pan Asia Technical Automotive Centre (PATAC) demonstrated in his address just how innovative lightweight design can be combined with high cost-efficiency thanks to the diversity of processing methods and materials that are available.

Plastivision Arabia 2016 to court food industry

Plastivision Arabia 2016 and Print Pack Arabia 2016 will be courting the food industry with the superior packaging technologies the market has to offer at their joint show in Sharjah in February.

February 22nd-25th 2016 will mark the third Plastivision and the second Print Pack Arabia and exhibitors at both shows are aiming to take advantage of rising food import and re-export sectors, and the emergence of the UAE as a regional hub of food trade, while at the Expo Centre Sharjah-hosted outing.

Both Plastivision Arabia and Print Pack Arabia are held in association with Indian partners - All India Plastics Manufacturers Association (AIPMA) and Indian Printing, Packaging and Allied Machinery Manufacturers' Association (IPAMA), respectively - which will help facilitate the participation of leading Indian industry players who are formidable in the packaging sector.

The shows, which are held once in two years, are expected to better the previous edition's visitor turnout of more than 7,250, given the steady rise in pre-registrations, visitor enquiries and confirmed visits by business delegations. The Hosted Buyers Lounge from Africa has already received assurance of visit by around 200 buyers from Africa.

Dr Abdulwahab Al-Sadoun

The future of the GCC plastics processing industry

Plastics have molded the modern world and transformed the quality of our life. A growing world population and growing material consumption has put severe pressure on our natural resources and fragile eco-systems. The material needs of our population are growing and plastics offer a cost effective and sustainable alternative.

In the GCC region, the plastics industry is a key segment of the petrochemical industry, which was launched to reduce the heavy reliance of the regional governments on volatile oil revenues and has the potential to further add value and creating job opportunities. In 2015, the GCC plastic resin industry continued its growth trajectory from the past decade, despite volatile commodity markets. The industry's production capacity grew by 6% year-on-year to a new high of 26.1 million tons.

By 2020, the region's plastics industry is expected to grow by 2.9% per annum from its current level, reaching 30.1 million tons, driven by greater self-sufficiency in downstream products and increases export opportunities. Major regional developments in the areas of automotive, aviation, renewable energy and other industries provide further opportunities and demand for local plastics conversion industries.

The plastics industry also benefits the Arabian Gulf region by generating employment and career opportunities for GCC nationals. Currently, the industry employs 32,000 people, while 125,000 people are employed in the GCC plastic processing industry.

Plastics producers from the Arabian Gulf have partnered up with local universities and vocational institutes, such as the Higher Institute for Plastics Fabrication and the King Abdullah University for Science and Technology (KAUST) in Saudi Arabia and the Petroleum Institute in the UAE to support the development of future talent and the innovation capabilities needed to establish the Arabian Gulf as a leading center for production, plastic conversion and plastics innovation.

The industry has also shown its commitment to innovation by heavily investing in R&D. Successful examples of new plastics application developments centers are SABIC's Plastic Application Development Center in Riyadh; Tasnee's innovation center in Jubail; Sipchem's innovation center in Dhahran Techno Valley; and of course Borouge's innovation center which opened last month.

Based on the above, we can say that the plastics processing industry in the region is built on solid foundations. The next three to five years will be a game changing moment for the industry, with the availability of performance polymers dramatically increasing (e.g. PC, TPE, PMMA, PA, POM) through projects such as Sadara and PetroRabigh-2 coming on stream and major growth rates in the building and construction industries (e.g. pipe, cable, insulation, etc.). This will provide further opportunities for the new set of plastics conversion industries in the region. New industries where GCC potential is to be realized are formulated specialties, including example water treatment chemicals, surfactants, lubricants adhesives and oil; and performance polymers, including acrylics, engineering plastics, elastomers and polyurethane.

Investment by 'clustering' to advance coherent integration between producers and the plastics processing industry will become even more important. Some good examples from which we can learn are already being developed: PlasChem Park in Jubail, the KIZAD industrial park in Abu Dhabi and Rabigh CIP in Rabigh. But, as we will discuss during the upcoming GPCA PlastiCon conference on 10-12 January, more needs to be done to boost the growth of small and medium-sized industries operating in the field of plastics processing to generate high-skilled employment and localized new technologies. Cross-sectoral cooperation between producers and the plastics processing industry in these industrial clusters will provide an impetus for further innovation in the value-added chain and strengthen the Arabian Gulf's position as a hub or plastics manufacturers and processors.






UPDATES ON TECHNOLOGY

New High Heat ABS from ELIX Polymers delivers weight reduction for roof hatch application

Lower density, processing benefits, very low emissions and odour vs PC/ABS

BOS Group, a leading supplier of innovative systems and components for the automotive industry, selected new High Heat ABS HH3114 from ELIX Polymers for the production of roof hatches for heavy duty trucks of a German premium automobile manufacturer.

The roof hatch is produced using state-of-the-art injection mould technology with sequential controlled hot runner valve gates. The material ELIX ABS HH3114 was chosen to meet the high requirements of the application and, following mold-flow-analysis, the technical departments of BOS, Schulman and ELIX Polymers worked together intensively to design both the part and the tool.

The part, which requires complex assembly and features several innovative functions, was produced in special colours to match the truck's interior.

In production, HH3114 offers a number of processing advantages. These include excellent processability and high flow, resulting in competitive cycle times. Less mould deposits means less mould cleaning and bring significant cost savings and higher productivity. The final part offers a weight reduction of 8% when compared to PC/ABS thanks to the lower density of High Heat ABS (1.04) vs PC/ABS (1.13). Moreover, high heat ABS is more economical than PC/ABS.

ELIX ABS HH3114 is part of a new range of high heat materials developed by ELIX Polymers. In addition to processing and performance benefits, the range is characterised by its very low emissions and odour – for example, HH3114: VDA277=9,9 µg C/g, VDA278 VOC=16/ FOG=3 µg/g (ppm), VDA270=3,0.

Fabian Herter said: "The successful development of this part was made possible thanks to the close cooperation between all four partners. The end result clearly shows that the use of High Heat ABS can lead to major innovations and significant cost savings. Overall, our new High Heat ABS Portfolio is able to meet the stringent requirements of the Automotive Industry in both interior and exterior applications."

Living To Expectations And Beyond – Rajoo Receives Order For A Third Blown Film Line From Devendran Plastic, Tamil Nadu

Technological supremacy of Rajoo in Blown Film Extrusion, coupled with a strong intent and astute comprehension of Devendran Plastic in understanding the market needs has helped create this winning combination. Devendran Plastic Private Limited, one of the youngest but fastest growing companies in the business of flexible packaging in South India, now orders its third blown film line from Rajoo. Satisfied with the Rajoo fully loaded 7-layer Blown Film Line for barrier packaging and the Rajoo OBC 3-layer Line, Devendran Plastic has now ordered the Rajoo fully loaded 3-layer line to specifically meet the needs and address the challengesof films for milk packaging as well as lamination grade films.

'This far, we have produced high quality barrier (7 layer) and non-barrier films using the Rajoo machines and I remain confident that the new Rajoo fully loaded 3-layer line will exceed our expectations, help us add capacity and address the stringent requirements of speciality films', accentuates D. Ashok Kumar, Director, Devendran Plastic Pvt. Ltd. 'Diversifying from our traditional business of coal trading, we were keen to work with a company that could help us make a mark in this field of speciality packaging; we now order our third machine from Rajoo', adds D. Ashok Kumar.

The new machine is customised to produce films for milk packaging as well as lamination grade films. The line is equipped with 75mm x 2, 90mm x 1 - 3 extruders along with 12 component material conveying, gravimetric batch blending & GSM control systems to produce a film width of 2400mm with output of 650 kg/hr. Other technological advancements include circumferential profile control system with controllable external automatic air ring with triple lip, width measurement and control and integrated computerised touch screen based supervisory process control panel.

Injection Molding- 3D Printing

'A repeat order is most gratifying; especially when it is the third machine, from a relatively new entrant, who is producing one of the best barrier and non-barrier films on our machines and effectively competing with machines imported from other parts of the world', states Khushboo Chandrakant Doshi, Executive Director, Rajoo Engineers Ltd.

OFRU's Innovative recycling system

For more than 30 years, German company, OFRU Recycling, has been known as a technology leader in the design of recycling plant for hazardous and flammable solvents. Recently OFRU has started its collaboration with K-Group of companies, as their main partner in Pakistan to provide support to the growing Packaging & Printing Industry locally. The company offers reliable and safe solutions for the treatment of printing industry solvents.

Among typical printing industry solvents that are easily recyclable are ethanol, ethyl acetate, isopropyl (alcohol), and toluene and the daily quantities of 250 to1000 liters of solvents for modern printers are no longer unusual, says the company. OFRU's solvent recycling plants ASC-100 or ASC-150 are suitable for printing press or platemaking solvents are said to reclaim between 160 and 800 liters/shift. With buffer tanks, they're designed for direct connection to the press, where the solvent recycling plant supplies 'in-line' fresh solvent for automatic cleaning of printing decks.

Both units are equipped with innovative safety devices. Printing solvents – in particular nitrocellulose are easily flammable at certain temperature and/or dryness levels. OFRU's solvent distillation unit ASC-150 is designed for direct connection to a printing machine and for this reason OFRU offers a special safety device for nitrocellulose solvents, which are distilled and supervised by means of strong vacuum at low temperature.

Another security feature is the design of the distillation boiler. Its specially-designed bottom, combined with a strong agitator, allows the walls to be optimally scraped off. The heating surface is used efficiently, not only saving energy but also ensuring continuous distillation. If, for any reason, the printing ink catches fire, a water shower immediately stops the exothermic reaction.

AFS – Future looking technology

At Zecher everything always revolves around the anilox roller: what began with the production of the global first regular engraved anilox roller has developed into an international player supplying quality innovative anilox roller solutions.

Today Zecher manufactures premium anilox roller and anilox sleeves for almost all well-known machinery manufacturers from the flexography printing, label, corrugated, cardboard, offset and coating industries. A large part of Zecher anilox rollers run in print applications, the quality of which has a decisive impact on the selling success of a product.

Zecher is the main contact partner as far as

high quality print applications are concerned. Continuous investments in new manufacturing technologies, a high level of innovation and 100% customer orientation thus only serve one purpose: To always produce the best anilox roller solution for the customer.

Typical application examples:

- Treatment of EDPM profiles in the automobile industry before the flocking process.
- Treatment of the gluing channel before bonding it to a headlamp diffuser.
- Treatment of electric razor or mobile telephone surfaces before the pad-printing stage.
- De-greasing of aluminum surfaced before a gluing stag

ZECHER – Innovative Anilox Roller Technology

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INDUSTRY ANALYSIS

Packaging & Printing Industry of Pakistan

by Faisal Javed, Macpac Films Ltd

Introduction

Pakistani food was traditionally packed in woven bamboo baskets, plastic boxes and wooden boxes made of para-rubber wood. Since the packages did not effectively protect the produce during transport there were tremendous losses. In addition, these packages were uncompetitive in the world market, in terms of appearance, ease of handling, use and disposal, and strength properties. Since the 1990'ies Pakistani authorities have realized the importance of improving the standards of packaging for products sold both domestically and overseas. The packaging industry in the country grew at a CAGR of 9.17% during the period 2009-12. This is primarily attributed to the growing demand in end-user markets. However, the unfavorable economic conditions in 2013 affected consumer demand and overall industrial activity in the country. The economic situation in Pakistan is expected to improve during the period 2015-16. As a result, the packaging industry is expected to register a CAGR of 6.38% during this forecast period.

Slows Growth

Packaging in Pakistan registered moderate growth in 2010-2012. This was due to several negative factors such as uncertainty over the pace of the ongoing economic recovery coupled with political instability. Consumers spent cautiously and this negatively affected consumer goods consumption. Consequently, packaging demand was also compromised.

Increase in Single-serve product sizes

Due to the higher prevalence of busier urban lifestyles and eating and drinking on-the-go, more single-serve packs were launched in Pakistan during 2010 and packaging producers continued to adapt to this changing demand. Lighter, smaller sized packs and improved closures were some of the areas in which packaging development was seen in response to this evolving consumer trend. Another trend which led to rises in single-serve packs was the trend towards eating healthy and fresh food in single-serve packs which do not need to be resealed and kept for future consumption. Another factor was the lower retail price of single-serve packs, which helped sustained demand during 2010. Small packs carry a lower retail price and are therefore more affordable. For example, single-use sachets remained popular in shampoos and conditioners.

Change in Packaging Type

Rising incomes and increased education and awareness is leading to a growing trend for the consumption of health wellness products in categories such as food, beverages and beauty and personal care products. In light of this, special packaging types for such products are also emerging, including the high quality plastic bottles and jars used for premium health and wellness oriented food. Furthermore, many premium beverages, especially juice drinks, are being packaged in glass due to its superior chemical compatibility with the product. The increasing consumption of yogurt, which is considered to be very healthy, has positively impacted demand for thin wall plastic containers in spoonable yogurt and rigid plastic, mainly HPDE bottles, in drinking yogurt. Many such premium healthy products require packaging with high quality graphics, designs and labelling. Often, healthy eating entails the consumption of smaller portions, particularly in indulgence categories such as confectionery and sweet and savoury snacks, and this trend is also helping drive demand for smaller packaging sizes.

Many Pakistani brand owners continued to select flexible packaging as their main type of packaging for both food and non-food products during 2010-12. This is due to its lighter weight and inherent economic benefits over other packaging types. Flexible packaging can be used for many applications including flexible plastic and stand-up pouches. Furthermore, new areas of innovation in flexible plastic such as microwaveable packaging, boil-in-bag and push-through blister packs are all helping many manufacturers to bring innovation to their products.

Bio-plastic

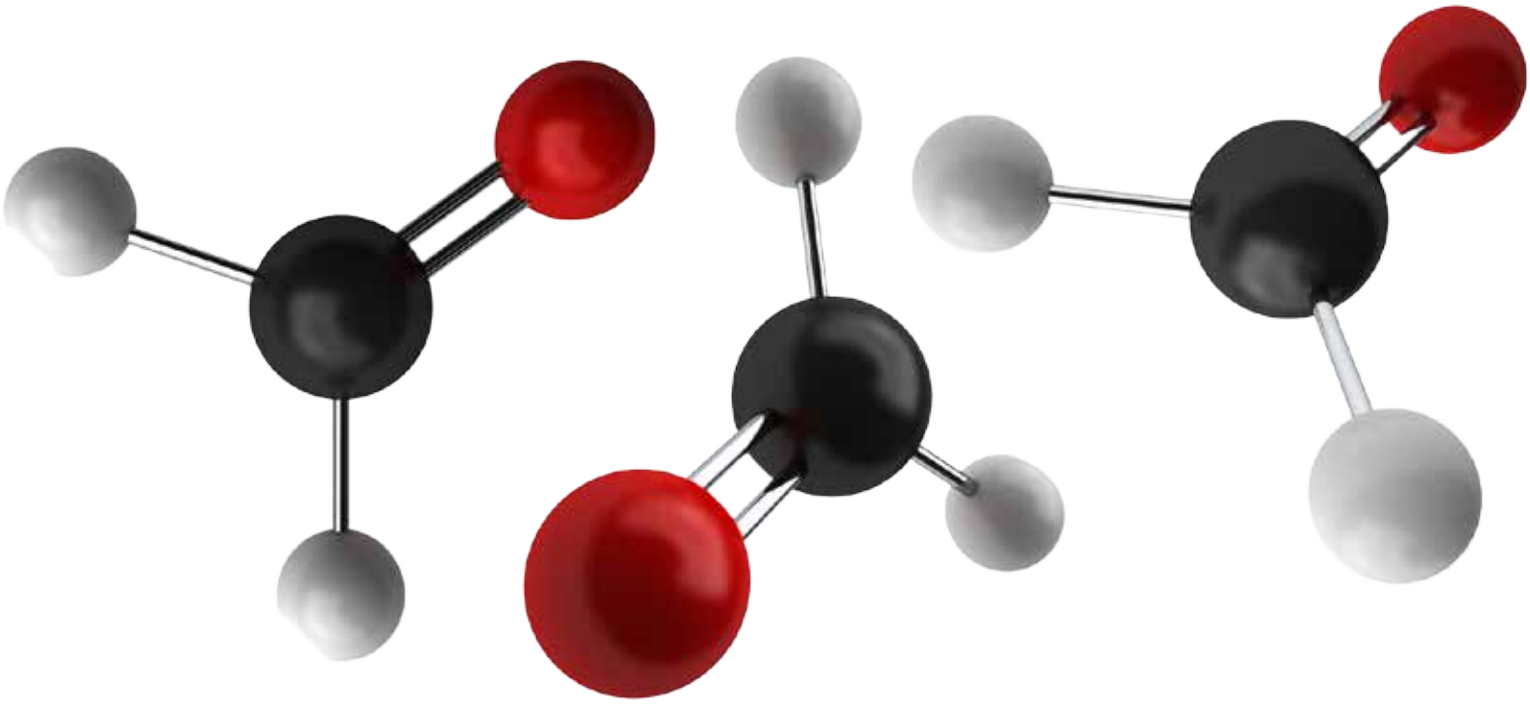
Due to the rising concern for the use of eco friendly packaging, bio-plastic is currently being evaluated in Pakistan as a viable alternative to more conventional plastic as well as other packaging types. The interest in bio-plastic stems from its inherent advantages. However, the use of bio-plastic packaging is still at an early stage in Pakistan. There are many agricultural products which can be used as the raw materials for bio-plastic production. However, as the cost of its production is still several times higher than for conventional packaging and there are fewer packaging manufacturers currently interested in offering their products with bio-plastic packaging, bio-plastic may take some time to take off fully in Pakistan.

Conclusion

Industrial packaging cannot grow by itself but it will grow in parallel with the product, how big or small will depend upon the number of products. Every product should have packaging to prevent itself and to increase its product value. If production is high, packaging will also be high, it is like a shadow. If the economy of the country is good, both internal and foreign trade will also increase. Production will rise and therefore resulting in the rise of the use of packaging. It is like a chain that is tied to each other forever. Packaging therefore becomes an economic indicator for the country.

When consumers have the purchase power to buy products, it would mean that consumers have good earnings and this is a reflection of the country's economy. In order to be able to compete with the world's market, Pakistan's industrial packaging should always be modernized and updated, the products life span should be extended as long as possible, its image should be outstanding enough to attract those who saw, its product value should increase, it should be able to respond to consumer's behaviour, it should be in line with the modern market, and it should be able to adapt to the new and changing delivery system and technology in production.

For the future, the use of various form of packaging will increase, i.e. Portable Packaging for snacks foods and others, Aseptic Packaging, Standup Pouch Packaging, E-commerce Packaging, Photodegradable Packaging and Environmental Friendly Packaging. All these forms of packaging will increasingly have more roles and will be used tremendously both internally and abroad according to the number of products made for the world's population. Form the reasons mentioned above, industrial packaging in Pakistan for 2016 will continue to grow which should not be less than 10%.



What is a good polymer?

Any Polymer is a collection of repeat unit, Poly means many and mer means unit. Monomer means single unit, diamer means two repeat units together, trimer means three repeat units together and so onwards oilgomer means several repeat units together. So PET - Poly Ethylene Terephthalate or generally called as Polyester is a collection of many ester repeat units.

Basic property of a polymer is the identity of its constituent monomers . A second set of properties, known as Micro-structure, describe the arrangement of these monomers within the polymer at the scale of a single chain. These basic structural properties play a major role in determining bulk physical properties of the polymer, which describe how the polymer behaves as a continuous macroscopic material. Chemical properties, at the nano-scale, describe how the chains interact through various physical forces. At the macro-scale, they describe how the bulk polymer interacts with other chemicals and solvents.

The physica l properties of a polymer are strongly dependent on the size or length of the polymer chain. As chain length is increased, melting and boiling temperatures increase quickly. lmpact resistance tends to increase with chain length, as does the viscosity, or resistance to flow, of the polymer in its melt state. Increase in polymer chain length results in a viscosity increase, increasing chain length furthermore tends to decrease chain mobility, increase strength and toughness, and increase glass transition temperature (Tg).

Properties of a good polyester:

A good polyester is one having even distribution of chain length, I.V. as per requirement, minimum ash contents, minimum yellowness as possible and better filter-ability.

Common way of expressing chain length is degree of polymerization which quantify number of monomers present in chain length.

Chain length is expressed in terms of molecular weight either as weight average mol. wt. (Mw) or Number average mol. wt. (Mn)

Polycondensation process yields a range of chain length, polyester is polydisperse substance i.e., it contains a distribution of molecular sizes and weights. The pattern of distribution is a reflection of polymerisation parameters.

Molecular weight distribution (MWD) is expressed as Poly dispersity (PD) = (Mw)/ (Mn).

A good polymer usually have PD= 50 000/25 000 = 2.0

Intrinsic Viscosity (I.V.) increases with increasing molecular weight . Generally I.V. range for textile grade polyester chips is 0.60 to 0.65. For staple fiber usually lower range 0.6 to 0.62 is preferred to achieve easy drawing while in filament higher range 0.63 to 0.65 is preferred to achieve better tensile strength (Tenacity).

Beside I.V. other properties of good textile grade chips ranges as follows:
DEG% < 1.2
CEG ueq/g < 30
Melting point deg C > 255
Glass transition temperature deg. C > 80
Hunter scale color
L values > 90
b values < 4.2
Ash % for BR 0.1 +/- 0.05 for SD 0.35 +/- 0.05
Oligomer contents % 1 to 2

Whiteness is indication of good polyester. Yellowness of polyester shows degradation or certain side reactions have taken place during process. The color depends on degree of decomposition in esterification as well as in in prepolycondensation stage but mainly is produced in the final polycondensation stage due to side reactions driven by the part of metal ions from catalyst. The factors responsible for color deterioration are temperature, residence time, oxygen or moisture ingress in process, quality of raw materials viz.

catalyst, dulling agent, stabilizers, etc. Another phenomenon is the natural aging of products on long storage and climatic conditions.

TiO2 quality contributes to color deterioration due to presence of rutile % and iron contents and nonuniform distribution of particle size inhibits agglomeration & clustering thus results in poor filtration and spinning.

For better spinning usually drop in I.V. is controlled with delta I.V. of < 0.02 i.e., difference in I.V. of wet chips (or melt leaving DRR) and free fall yarn. This indicates that, degradation is under control and polymer chain and color is good. This is achieved via plant design based on residence time of about 28 to 30 minutes and transfer of melt to spinning beam with minimum heat treatment as possible. Also good filtration improves spinning.

Write up By:
Zainul Abedeen (Manager Product Development)
Gatron (Industries) Ltd.
January 2015

Poison in Plastic Baby Bottles:

How to Know What's Safe for Your Baby

by Mudassir M. Khan, Sanaka Plastic & Scientific

The Dangers of BPA

Some baby bottles, water bottles, and other clear plastic containers are made of polycarbonate (PC) plastic, a polymer made with the chemical bisphenol-A (BPA). BPA is a hormone-disrupting chemical that in animal studies has been associated with reproductive abnormalities such as lower sperm counts, hormonal changes, enlarged prostate glands, abnormalities in the number of chromosomes in eggs, and pre-cancerous changes in the breast and prostate. It also has been associated with obesity and insulin resistance—a condition that commonly precedes the development of diabetes.

The Government Needs Stronger Protections for Consumer Products

Considering the potential hazards of BPA on infants and babies, EU, USA, Canada (including most of the North American countries),Australia, China, Far-eastern countries, GCC (including most of the Arab countries) and many of the African countries (less developed than Pakistan) have already banned BPA containing plastics for the manufacturing of baby bottles and sippy cups. It is very unfortunate that till to-date no NGO or government organization has bothered to say a single word on this potential hazard. Pakistan government should immediately

1) draft a law to protect the consumers from such dangerous chemicals.
2) strictly ask the plastic articles producers to show the plastic type on the article and packing also make it mandatory to show BPA Free sign on the packaging accordingly.
3) ban the import and local manufacturing of the baby feeders made of Polycarbonate or any other BPA containing plastic.
4) give incentives to the local manufacturers to promote production of BPA free baby feeders and other products.

What can I do to prevent exposure to BPA?

If you are concerned, you can make personal choices to reduce exposure:

- Don't use polycarbonate (PC) plastic food containers.
- Avoid plastic containers made with Polycarbonate (PC) and/or with the #7 on the bottom
- Use infant formula bottles that are BPA free and look for toys that are labeled BPA free.

One Stop Shop for All Your Plastic Packaging Need

By Bin Qasim Packages (Pvt) Ltd

A Valued change in the market of packaging industry in upcoming days which bring diversification in the flexible & rigid packaging industry. The combination of BQP & A-PAK helps to provide unique packaging solution to the clients of various sector. To be the most admired and trusted organization through excelling in everything we do, following ethical business practices, compliance and adding value to stakeholders.

Bin Qasim Packages Private Limited are the manufacturer of PP Woven Laminated & Non-Laminated Bags, PP Gusseted Bags, HDPE Liners, PE Shopping Bags/ Wrapping Sheets etc.

While A-Pak is involved in the business different molded product range of Injection & Extrusion blow molding. Beside these all it is honor for us that we are the pioneer leading manufacture of EPS product (glass, cup, fish box and etc.).

Our passion to achieve excellence in all the spheres of the business has consistently fueled our growth in the competitive market.

- Stringent Quality Control
- Advanced Manufacturing Units
- Waste Management Cycle
- On Timely Delivery
- Competitive Pricing

We realize that every problem is slightly different from the one before it, as is every customer's requirement. Which is why, we never offer a "one size fits all" solution to our customers. Every customer and indeed, every order, is preceded by a thorough understanding of the customer's needs, problems and the limitations with the current approach to solving those problems.

Our future goal is to bring multi- layer extrusion lines to provide multi- layer films similarly to enhance the printing technology by including gravure phenomena in the process that enables us to improve the printing graphics.

Consistently High Quality Pet Bottles With New eHR Solution For Sidel Matrix Blower Range

Sidel, the leading global provider of PET solutions for liquid packaging, has introduced a revolutionary PET blowing solution - the Sidel Matrix™ blower eHR - to produce hot fillable PET bottles of consistently high quality. By heating the mould via electrical heat resistance (eHR) instead of hot oil, the Sidel Matrix blower eHR achieves various benefits in terms of bottle quality, performance, process flexibility, uptime, energy savings and operator safety.

Enhancing consistent performance, saving energy

Sidel's eHR electrical heating replaces traditional heating of the mould for the PET bottle body by oil. Very responsive, it creates a temperature increase three times quicker than heating by oil, accurately providing the correct temperatures from the first bottles produced. Probes are directly located in each mould shell to regulate the temperature as closely as possible to the PET bottle as it is formed. Temperature discrepancies between different blowing stations are kept to an absolute minimum. As a result, all bottles undergo the same thermal conditioning and therefore offer a consistent performance when placed on the supermarket shelf and when in the hands of the consumer.

The latest generation of blowing valve on the Sidel Matrix blower, combined with the mechanical blow nozzle system, electrical stretching and automation, gives high control of the blowing curve. This allows mechanical output to be increased by up to 2,000 bottles per hour per mould representing a speed improvement of more than 10% compared with the previous generation of Sidel HR blowers. At the same time, it still maintains enough cycle time to ensure a consistent blowing process.

Electrical heating also offers energy savings of up to 45% compared with the previous generation of Sidel SBO Universal HR blowers. This is much more efficient than oil mould heating. The performance of the Sidel Matrix Ecoven with the infra-red lamps and ceramic technology reduces use of power by a further 25% and by implementing the AirEco2 air recovery option, air consumption can be reduced by up to 45%.

Hygiene and safety

By eliminating oil altogether, the Sidel Matrix blower eHR prevents hazards caused by leakages, such as operators' slipping and contamination. With electrical stretching, there is no need for lubrication above the neck of the bottle, removing the risk of contamination. Some components are lubricated for life and for those parts that do need lubrication, food-grade grease is used.

The Sidel Matrix blower eHR benefits from other proven Sidel Matrix developments such as oven ventilation with air filtration for more hygienic production.

As the moulds are insulated from the mould supports, the hot temperature is focused on the moulds while the ambient temperature in the Sidel Matrix blower eHR remains lower than in a traditional HR blower. This avoids any thermal constraints on other nearby machine components. Parts that operators may come into contact with inside the machine are at a lower temperature which contributes to safer intervention conditions.

Staying ahead with innovative developments

With 35 years' PET experience, Sidel has delivered almost 560 HR blowers around the world. This know-how is complemented by its experience in the hot filling of beverages, which it started almost four decades ago, first in glass containers and then in plastic. Damien Fournier, Blowing Product Management Director at Sidel, comments – "Sidel has been a central player in the hotfill segment of the beverages market ever since the introduction of the blow moulding HR PET process in 1986 and Sidel Matrix eHR provides unique operational benefits to beverage producers."

The Sidel Matrix blower eHR combines the innovative eHR solution with the latest proven technologies of Sidel Matrix blowers. Mechanical settings are the same and 73% of the eHR blowing station components are similar to those of standard Sidel Matrix blowers. It can be combined for example with the Sidel Matrix Intelliblower™, which brings control and self-regulation to the blow moulding process, independent of any operator intervention. As it is contactless, electrical stretching is robust and gets no wear, delivering consistently high quality PET bottles and contributing to increased output.

Benefits of eHR blowing with Sidel Matrix Combi Hot Fill

This new electrical heating resistance blowing process is integrated into the Sidel Matrix Combi Hot Fill that integrates the blowing, filling and capping functions in one machine. Sidel Combi systems offer line efficiency levels up to 4% higher than standalone machines and by reducing the number of machines involved, can cut operating costs by up to 12%. Compact and ergonomic, they optimise line layout with a smaller footprint and their controlled production environment ensures hygiene and food safety are kept under control.

The Sidel Matrix Combi Hot Fill has electronic filling valves, equipped with individual flow meters for accurate volume dispensing with minimal wastage. Hygienic design and contactless filling valves ensure complete beverage safety. It can accommodate a broad range of beverages with and without pulps or particles, and it can easily manage neck changeovers.

Meeting the challenges of hot filling PET bottles

'Hot filling' is a method of safely bottling sensitive beverages like juices, nectars, soft drinks, isotonics and teas (JNSDIT), by heating them. This heat sterilises the beverage and, once the bottle is filled, capped and tilted, then the bottle and cap. The temperature required (between 80° and 95°C) is above the normal thermal resistance of conventional PET bottles.

The production of a quality HR PET bottle to withstand these higher temperatures requires processing via a particular stretch blow moulding method. This involves blowing bottles in efficiently heated moulds at temperatures above 120°C with reliable controlled blowing. Traditionally, this temperature is attained by circuits of hot oil connected to a thermo-regulator. The mould base – and sometimes the mould neck – is usually connected to a second thermo-regulator. These conditions minimise PET stresses during the blow moulding phase, creating a heat-induced crystallinity and the hot moulds 'lock in' the crystalline microstructure.

The new Sidel Matrix™ blower eHR combines the innovative eHR solutions with the latest proven technologies of Sidel Matrix.