



“A World of Plastics Information”

Part news. Part views.

NOVEMBER 2013

Our 15th Year

K 2013 Highlights

Dear Colleague:

Inflation inching into improving iteration...Slow recovery feeling like recession? Many economists are advocating moderate inflation needed to get back to double digit growth. China resumes its growth and its foreign investment is estimated to be \$ 1 trillion over 10 years (\$15-20 billion per year in the U.S. by 2023) – could result in inflation extant. If waiting is possible by many small to medium businesses in our industry, the last half of this decade could prove to be most prosperous, if not booming. Look for energy prices to trend lower as 2014 approaches, with crude oil at \$90/bbl and natural gas at or below \$4.00/mill btu. Domestic energy production, both oil and natural gas, in the U.S., is on a long term upward trend. The shale energy boom in the U.S and Canada is here. Supplies will grow exponentially with petrochemical companies benefitting – excess capacity will further exports and keep a lid on plastic resin prices.

TRENDS:

An explosion of 3-D printing technology, with ramifications for our industry, is about to launch. This new technology utilizes thermoplastic extrusions as feedstock and substrates... 3D Systems, Voxeljet, and Organovo are some of the players in this emerging market.

Editors Note: Reverse trends... Whatever happened to: IBM Selectric typewriters; Pagers; Telex; EDI; Telephone answering machines; - and yes... Fax machines; Blackberries?

K 2013, which ran from 16-23 October 2013 in Dusseldorf, Germany (and is held once every three years), had part of a hall devoted to Semi-finished products, technical parts and reinforced plastics. Among the significant displays affecting our industry were:

- Celanese introduced next generation of UHMW-PE, 60 years after first introduced
- Celanese also announced a new series of POM (acetal co-polymer)resins for use in piping and tubing ...called Hostaform® PTX
- Gharda Plastics, India, launched family of PEK and PBI HPM's – low friction and wear properties are highlights of this new group of polymers – heat resistant to 360C
- Perstorp unveils transparent Co-polyester called Akestra™
- DuPont introduces two new Zytel® nylon resins for use in hose and tubing
- Evonik exhibits new Plexiglas®-based MMA glazing for automotive use – also announces it has fully recovered from nylon 12 shortage that occurred in early 2012
- Palram celebrates its 50th anniversary as producer of multi wall PC sheet
- Dow Chemical unveils new polyolefin family of materials called Intune™

OUTLOOK ASIA: ...by Mal Binnie, our Pacific Rim correspondent in Australia

The \$Aus has been affected by the Reserve Bank Governor stating that it is currently overvalued and likely to fall in the future. It reacted by falling from 0.96\$US to 0.95. The PMI for Australian Industry has stayed steady at 51.7. Any delays in repealing the Carbon Tax will be costly to the plastics industry. For engineering plastics suppliers the Australian Bulk Handling Review just published lists all Bulk Handling engineering firms. Most Australians are just returning from the K Show and reports will be included in next months Newsletter. Jet Technologies has acquired laminating film supplier Pacfilm.

NZ manufacturing has been affected by the drought and sales volume fell by 3.4%. Bic is reported to be considering closing its manufacturing plant in Auckland NZ. China's manufacturing activity expanded again in October achieving a PMI above the 51.2 achieved in September. The September result suggests China has ongoing growth both domestically and in export. The plastics industry was reported to grow 8.1% in the first six months of 2013. At the K Show China had 340 exhibitors and Taiwan 131 together with India made up 15% of the exhibitors. Independent labour unions in China are helping to raise workers aspirations and thus efficiencies. Huntsman Polyurethanes have opened a technical centre in Shanghai and a compression moulding plant has been opened in Shanghai by West Pharmaceutical from Exton, Penn. Polykemi AB is planning to expand its plant in China next year and Nolato AB is reported to be building a dedicated medical manufacturing plant in Beijing to commence operations early in 2014. China manufacturers account for over 60% of the world's supply of solar panel production. China is reported to be using and producing 50% of the globe's plastic pipe. Intersurgical Ltd UK is reported to be commencing construction in November in Changzhou. Johnson Controls Inc is reported to have begun construction of a corporate centre in Shanghai, and they have confirmed another 11 plants to be built over the next few years.

OUTLOOK EUROPE: by Ralph Ammann, EuroZone correspondent in Germany

After introducing Radilon D PA6.10 engineering plastics made from 64% renewable-source materials, now the RadiciGroup presented there its new Radilon DT PA6.12 family of products, all featuring exceptional chemical resistance, even to salts such as zinc chloride and calcium chloride. Among the countless potential applications are mono- and multilayer fuel lines, for which suitable extrusion grades are scheduled for immediate production. According to the company characteristics of the new range include a high impact resistance, a good heat-ageing resistance as well as an excellent chemical resistance. Good hydrolysis resistance and an exceptional resistance to cracking stress are other benefits. German-based Ensinger has launched the "Tecasint Compendium" about their polyimide materials. The brochure has been radically updated and significantly extended for K. The focal section of this 24-page publication is an extended detailed chapter on the mechanical, thermal and tribological characteristics of non-melting high-performance plastics. German-based Simona AG announced a visitor record at K 2013. The number of guests on the booth was 40 per cent higher than three years ago although less visitor attend K than 2010. This was good news after an unsatisfactory earnings performance in the third quarter of 2013. The Group generated sales revenue of €77.6 million in the third quarter. This figure was close to that recorded in the third quarter of 2012, when revenue had totalled €78.1 million. Compared to the second quarter of 2013 (€71.3 million), the Group managed to lift sales revenue by 8.9 per cent. In total, the Germans generated revenue of €218.0 million in the period up to 30 September 2013, which is 4.0 per cent less than in the same period a year ago (€227.2 million). Elsewhere, Swiss-based EMS-Grivory has launched a new, high heat-stabilised polyamide called Grivory HT2VS-HH which is based on Grivory HT2. The new modified polyphthalamides are designed specifically for long-term use under extreme continuous temperatures. According to the manufacturer they have outstanding resistance to heat ageing over a wide temperature range from 180°C to 250°C. They have no stabiliser gaps of the kind often commonly known from other heat-stabilised products. Another feature of the new material is the fact that its resistance to ageing actually increases with rising temperatures. The products have an unusually high retention of properties in the uppermost range from 230 to 250°C. Finally, by investing in a SLS (selective laser sintering) plant, Röchling Technische Kunststoffe KG, Lützen, Germany offers now the possibility of manufacturing the most complex machined components in a 3D printing method.

The company is focusing on small-scale production of components which could not be realised with the technologies available hitherto. For customers, this process opens up new options in the development of innovative components. With this technique, spatial structures made of powdered plastic using laser beams can be manufactured through sintering in one processing step. Compared to other 3D printing processes, SLS has distinct benefits with regard to the quality and mechanical strength of the components as well as the reproducibility.

OUTLOOK INDIA: by S. Radhakrishan, Group Editor, *Popular Plastics & Packaging*

The Government of India (GoI) will provide funding for setting up plastic parks, being planned for the promotion of downstream plastic processing industries, according to the Ministry of Chemicals and Fertilizers. The scheme, to be implemented by the Department of Chemicals and Petrochemicals, envisages setting up of a 'Special Purpose Vehicle' (SPV), which would provide infrastructure and common facilities for the industries. State Government or its agency, which would set up such SPV, will have to mandatorily have equity participation in it. IG Petrochemicals Ltd has commenced commercial production at its new phthalic anhydride plant. Phthalic anhydride is used in industries such as flexible PVC, paints, construction, transportation and marine. Reliance Industries Ltd. (RIL) became the first company in the country to achieve sales of more than Rs. 1,00,000 crore in a quarter. The company reported a decline in refining margins and a modest 1.5 per cent increase in net profit for the second quarter ended September 30. The growth came from the petrochemicals and refining businesses while the oil exploration business remained flat. A consortium headed by Hyderabad-based Greenko Group is reportedly planning to set up a petrochemical hub at Sonepur in south Odisha's Ganjam district. The project coming up as a part of the energy and oil city involving an investment of Rs 15,000 crore, will be implemented by Sonepur Energy & Oil City Ltd, a special purpose vehicle (SPV) formed for the purpose. The petrochemical hub includes a 7.5 million tonne per annum (mtpa) petroleum refinery. A gas cracker unit will also come up at the hub with a capacity of 0.3 million tonne of ethylene. The principal end products will be polypropylene (PP) and high density polyethylene and linear low density polyethylene. A captive power plant of 500 Mw capacity and desalination plant of 120 million litre per day have also been proposed within the hub. PolyOne Corporation, a premier global provider of specialized polymer materials, services and solutions, has announced to expand operations in India. PolyOne has begun construction on a new state-of-the-art facility in Pune, India, that will manufacture specialty materials, including solid masterbatch, liquid colorant and additives. The facility will operate development labs and the sales and customer service center for the region, and it is expected to open in the first quarter of 2014.

PRICING: PP and PVC resins drop single digits in October. All HPM's and ETP's show stable pricing as do MMA and PC – reflects slow growth demand and mostly stubborn application growth.

MANUFACTURER/DISTRIBUTOR BRIEFS:

SABIC's Exatec LLC unit has finally gained approval of its coated PC sheet as automotive side window glazing in a VW XL1 hybrid vehicle...a 33% weight savings over glass. Bayer MaterialScience's Sheffield unit re-introduces Hygard® EX PC laminate security sheet as part of a structural façade, offering security and containment for critical buildings. Also appoints Brian Heine western regional manager. Lanxess appoints Mito Polimero Italy, its distributor for engineering plastics in Italy.

MERGERS. ACQUISITIONS, ALLIANCES, EXPANSIONS AND DIVESTITURES:

DuPont is divesting its Performance Chemicals unit into a new company...includes fluoro polymers (Teflon® etc), but not its Performance Materials unit, which includes nylon resins and specialty films. The fluoro polymers business has revenues of about \$1.2 billion.

INDUSTRY INTERVIEWS: by Raymond. D. Pace, Worldwide Marketing Director, Process Systems Business Unit, Saint-Gobain Performance Plastics

Q. Can you take us through the history of the evolution of Saint-Gobain Performance Plastics?

A. The Process Systems Business Unit at Saint-Gobain Performance Plastics (SGPPL) has a well-established history in providing innovative product solutions as the world's leading producer of engineered, high-performance polymer products, serving virtually every major industry across the globe. Backed by a proud heritage of product innovation, technological expertise and market leadership, Saint-Gobain Performance Plastics is dedicated to working with its customers to solve today's application issues and the challenges that lie ahead.

The Saint-Gobain adventure started in 1665, in France, during the reign of Louis XIV, with the creation of the Manufacture des Glaces. (Editors Note: Company is 137 years older than DuPont which was founded in 1802) This was the start of a company that would leave its mark on the glass industry through its iconic achievements, such as the Hall of Mirrors in Versailles and the Pyramid at the Louvre in Paris.

Through heavy investment in research and development and a series of mergers and acquisitions, Saint Gobain expanded its product line and geographic presence. Two acquisitions led the creation of Saint Gobain's Performance Plastics group – Norton, a leading supplier of abrasives and high-performance materials, in 1990 and Furon, a manufacturer of highly engineered polymer products, in 1999. Hundreds of years after its founding, the company stands as one of the world's largest international manufacturer of material solutions.

Saint-Gobain Process Systems helps customers achieve safety, performance and brand assurance through a broad range of capabilities that rely on superior engineering and customer support. Our product applications for the Process Systems Business Unit include those in the food, beverage, habitat, aerospace, chemical and electronics sectors. We've helped customers in all of these industries achieve goals in innovation, efficiency, sustainability and product integrity through customized solutions such as flexible tubing, gaskets, seals, hoses, fittings, pumps, valves and manifolds.

Q. How is the company structured today? Locations? Management? Leadership?

A. Saint-Gobain Process Systems is strategically positioned, with plants, personnel and distribution networks in a diverse range of global markets. Core facilities are located in Asia, Europe and North America and we also have dozens of satellite offices and manufacturing operations worldwide for a truly global presence.

Q. What percentage of your product line is sold through authorized distributors?

A. Roughly 50% of the Process Systems Business Unit's solutions are sold through authorized distributors around the world. This accounts for a variety of precision engineered solutions that protect integrity, provide maximum durability and contribute to sustainability measures. Applications include critical care, fluid handling, housewares, chemical and aerospace.

...to be continued in the December 2013 issue.

Information contained in this newsletter has been taken from trade and statistical sources that we consider reliable but we cannot assure its accuracy or completeness. Any opinions expressed reflect our judgement as of this date and are subject to change.

MEL ETTENSON'S GLOBAL PLASTICS LETTER™
is published monthly by Lucitron Corporation,
P.O. Box 250235, Franklin, Michigan 48025,
USA. Postage paid at Royal Oak, Michigan. \$175 for 12 issues.

ISSN: 2164-7291

Subscription or Editorial Information: 248/258-5657
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