



“A World of Plastics Information”

Part news. Part views.

SEPTEMBER - OCTOBER 2014

15th year, 2nd century

Issue # 176

Dear Colleague:

Recovery redux rearing? All indications, despite usual summer doldrums and negative inertia, point to a persistently sustained growth across all our industry segments. A critical point will be reached when the global economy pauses (will Europe resume growth or the U.S. economic plan continue? – what will Asia do?) Will it be cut or spend? How will our industry benefit from either direction that the globe is about to take by the beginning of 2015? These are some looming issues and decisions that are macro economic. Of course, the micro economic results will determine future growth and opportunity in our segment of the plastics industry. Planning for each eventual outcome needs to start in 4Q 2014. GDP increases of 3% and Productivity of 2% seems likely. Growth in the economies of Canada and Mexico is accelerating. Eurozone remains stalled.

TRENDS:

Plastics News rankings and revenues of Film & Sheet Manufacturers lists some of our industry’s top suppliers such as: Polyone: \$869 mil; Inteplast \$777 mil; Primex: \$600 mil; Plaskolite \$312 mil; SABIC IP: \$161 mil; Bayer MaterialScience/Sheffield: \$144 mil; Arkema \$130 mil; Evonik CYRO \$120 mil; SIMONA \$85 mil. Alibaba, via it’s Taobao website may begin competing with Amazon Supply, adding pressure to existing Industrial Distribution (including Plastics)...being called “a dating site for manufacturers and buyers”.

Editors Note: A special report on Amazon Supply (AS) seems timely, considering the swift impact they are having on B-to-B internet commerce and with the emergence of Alibaba ...herewith:

AS has more than 2.25 million B-to-B products, in 17 product categories on its website (of which approximately 2% are plastics) and has 125,000 people loading data. It’s Facebook page has offered a “Deal of the Day”. Of course there is no expert advice or value added services offered nor might there be in the future. However specifications and product information are well presented on the site. Recently there have been excellent reports on how AS is changing industrial distribution including how many are out-servicing AS, and in one case (MSC), competes with the speed of Amazon. See “How to Compete With Amazon Supply” at <http://www.inddist.com>

Also “Trend Talk: 10 Ways Amazon has Changed Distribution” published by Gale Media, Inc. in 2014 available at <http://www.mdm.com>

Alibaba, freshly launched as a result of its recent IPO, is considered by some watchers as a combination of Amazon and eBay and through its Taobao website, trending to B-to-B. Unlike AS however, Alibaba doesn’t own its own assets for last mile delivery or even fulfillment: they are an online virtual e-commerce platform that tenders orders like eBay. Stay tuned to both of these new players.

OUTLOOK ASIA: by Mal Binnie, our Pacific Rim correspondent reporting from Australia

For the last 2 months business activity has continued at a steady pace of growth in the Pacific countries. New Zealand has reelected its Government with only minor changes but the same Prime Minister. Australia has increased its terrorist threat level in coordination with the USA and Europe. China and Asia continue with steady growth. Australia has seen its currency fall below \$US0.90 and some economists are predicting the \$Aus in the range 0.73 to 0.85 by mid 2015. Chinas financial position remains strong Qtr1 GDP was 7.4% and Qtr2 rose to 7.5%. Qtr3 results should confirm this growth. Recent claims of productivity declining in China is seen by many as more headline hunting than reality. PMI for China in August did decline to 51.1 but only by 0.6 from 51.7. In China nearly 30million people per year move upward in income level and add to the domestic market for TV's, refrigerators etc and increase the consumption of plastics. It is reported that China is also expanding its manufacturing in the USA based on cheap energy and City/State incentives. Currently China's cost advantage over US producers is claimed to have reduced to 4%.

The Chinese Academy of Science signed in September a 5 year agreement with Sabic Basic Industries. This will provide education, training and research opportunities for both scientists and students. Guangdong Jinming Co Ltd has entered a licensing agreement with Dow Chemical for processing PVDC. BASF continues to develop its innovation campus at Pudong Shanghai. Crack downs by Chinese Government instrumentalities on counterfeiting has been applauded by numerous world manufacturers. DuPont opens its first innovation centre in Shanghai collocated with its R&D centre. The Chinese Government has reported plans to invest in Gujarat India in 2 industrial parks and to examine investing up to \$20billion this follows an announcement from Japan of an investment of \$35billion.

PMI in Australia was down in August by 3.4 to 47.3, July was 50.7. Exports are lifting in response to the lower \$Aus. Acrylic sheet prices in Australia remain very competitive even though Asian suppliers are seeking price increases and MMA spot prices are continuing to rise. PACIA held its annual conference in Mid September with the theme Manufacturing our Future. The Australian Manufactures Monthly newsletter highlighted Bakelite as its material of the month and confirmed that Bakelite Industries Brisbane still produces Bakelite using 50 year old machines. Orora Ltd demerged from Amcor late 2013 has acquired plastics packaging distributor Worldwide Plastics Co based in Texas. Amcor reported a 25% net profit in the last fiscal year and it is looking for further growth from its Liquiform technology. Melbourne based Compco Pty Ltd compounder and concentrate maker has been acquired by A Schulman Inc, Ohio. Orica Chemicals in its goal of growth is planning to separate its chemicals business from its mining services.

Mulford Plastics have reported staff changes with MD Ian Grant retiring after 25 years but continues as a Director. Peter Pericleous appointed MD of Mulford Interntional and Steve Baker, located in Brisbane, appointed GM for Australia. Lar Aerenga appointed Queensland State Manager. In Melbourne Chris Saflekas, ex EPlas, has acquired Plasmac. Brisbane based TensaiTech is reported to have developed a plastics additive to double the surface hardness and scratch resistance of acrylic sheets. Mulford Plastics are also reported to be promoting in conjunction with Astari their acrylic sheet trade names Astariglas and Tessematt. NZ total manufacturing sales have been reported to increase each month and in Q2 showed increases above 25%. An accident at Sislena Plastics Auckland has reinforced the need for maintaining safety standards at all levels, the result of this accident was limited to some broken bones. Mulford Plastics announced the appointment of Steve Foley as NZ Sales Manager.

Mitsubishi Rayon acquired a majority stake in a German producer carbon reinforced plastics for automobiles. DIC Corp of Tokyo has announced plans for a new PPS plant in Zhangjiangang China and will increase its total global capacity to 40000 tonnes. BASF announced plans for PA and PBT compounding plants in Yesom, Korea. Indorama Ventures Bangkok plans to invest nearly \$6billion in new projects in 2014-2018. IPF will be held at Makuhari Messe Japan October 28 to November 1 2014.

OUTLOOK EUROPE: by Ralph Ammann, our Euro Zone correspondent in Germany

The latest European report focuses on plastics trade fair Fakuma which is to be held in the middle of October at Friedrichshafen, Germany. Reaching its 23rd exhibition, with around 1,700 exhibitors and over 44,000 visitors from 119 countries, Fakuma represents the biggest event in the plastics world this year. Additionally, this fair is always a meeting point for manufacturers of semi-finished. This year one sample is Teknor Apex Company introducing four new injection molding compounds incorporating recycled polyamide (PA), glass fiber reinforcement, and performance-enhancing additives providing an excellent balance of cost and performance for applications that do not require the elevated property profiles of premium-priced grades.

According to the company Recyclon® 400 Series PA6 and 500 Series PA66 compounds are the first Recyclon products available in Europe. In each series, currently available grades have filler content of 15 and 30%. Of particular significance is the fact that all four grades exhibited a minimum of 80% property retention after 1,000 hours of heat aging at 140 °C.

Furthermore, Dutch-based Royal DSM will unveil the next generation of Diablo high temperature resistant grades in its Stanyl® polyamide 46 and Akulon® polyamide 6 portfolios. These new Diablo grades are said to be aimed at applications in automotive engine compartments such as air intake manifold, ducts and charge air cooler combinations, where temperatures can reach as high as 250°C. The Dutch are also said to lead the way in high performance engineering plastics for the electrical and electronics sectors. They will demonstrate the use of Stanyl TC, a thermally conductive grade of Stanyl polyamide 46, in a heat sink for new LED downlights from one of the world's leading lighting companies.

Additionally, Saint-Gobain Seals and Bieglo will be showcasing their new Meldin® 7000 product (thermoset polyimide material). According to the manufacturer the Meldin product line consists of the most complete range of thermoset polyimide and engineered thermoplastic materials available on the market today. These materials are available in compression or injection molded and machined components as well as basic shapes for customization and design flexibility. Among the different grades, Saint-Gobain Seals' Meldin 7000 series is a leading high-performance polyimide product, developed for highly demanding wear, friction and temperature applications such as thrust washers, seal rings, and bearings. These materials are also well-suited for structural component applications requiring extreme electrical or thermal insulation properties, high purity, low outgassing, and outstanding chemical resistance.

Ryton PPS, to be acquired by Solvay, has a strong share in the automotive sector, replacing metal parts to make cars lighter and more energy efficient. Other worldwide leading positions are in electronics where it enhances fire resistance of components, and in filter bags to extend their lifetime in reducing pollution at coal-fired power stations. Solvay Specialty Polymers will buy from Chevron Phillips Chemical two Ryton® PPS resin manufacturing units in Borger, Texas, its pilot plant along with R&D laboratories in Bartlesville, Oklahoma, and a compounding plant in Kallo-Beveren, Belgium. Chevron Phillips Chemical's compounding unit in La Porte, Texas, will provide temporary tolling services to Solvay. This acquisition is part of Solvay's strategic development into a more specialized solutions provider, delivering higher growth, and greater returns while reducing cyclicity. Completion of the transaction is due in the fourth quarter of 2014 and subject to customary closing conditions.

Secondly, German-based TER Plastics Polymer Group took over the majority of the Polish Polimarky Performance Polymers in Rogoznica. The new TER Plastics subsidiary was subsequently renamed into TEREZ Performance Polymers. High performance compounds on the basis of engineering thermoplastics are manufactured at the new location on state-of-the-art extrusion lines. The production facility in south eastern Poland has excellent traffic connections to the rest of Europe. It is equipped with Berstorff extrusion lines of the latest design with a capacity of 25,000 tons per year for all lot sizes. Furthermore, both a fully equipped development center and a color center are integrated into the recently completed large industrial

building. The research and development work benefits greatly from the proximity to the local university and technical institutes. Engineers and chemists in polymer science and process engineering as well as in other relevant subjects are trained there.

OUTLOOK INDIA: by S. Radhakrishnan, Group Editor, *Popular Plastics & Packaging*, Mumbai, India, our special correspondent in India.

Oil and Natural Gas Corp's (ONGC) long-delayed megapetrochemical plant at Dahej in Gujarat will be commissioned by June next year but at 27 per cent higher cost of Rs 27,122 crore. ONGC had in 2006 set up ONGC Petro-additions Ltd (OPaL) for building a mega petrochemical complex at Dahej in Gujarat. OPaL will produce polymers which was used in manufacture of packaging films and other plastics products besides chemicals used for making plastics Brahmaputra Crackers and Polymers, the first ever petrochemical project in entire North East India, is expected to go on stream from June 2015. Gail is the main promoter of BCPL having 70% stake. The principal end products of the project, which will use natural gas and naphtha as feedstock, will be high density polyethylene (HDPE) and linear low density polyethylene (LLDPE) totalling 2,20,000 tonnes per annum (TPA) and 60,000 TPA of polypropylene (PP). These products would be marketed with assistance from Gail, which has approximately 21 per cent share in domestic polyethylene market.

Bayer MaterialScience (BMS), the Germany-based leading producer of polymers and high-performance plastics, is planning to increase its production capacities in Cuddalore, Tamil Nadu by adding a second TPU production line. The New Delhi-based Vikas GlobalOne Ltd, a manufacturer of specialty polymers compounds and adhesives, has commenced manufacturing of a new range of products – UPVC and flame retardants - for applications in rigid PVC pipes and wires & cables industries. The company has two manufacturing plants at Samba (Jammu and Kashmir) and Alwar (Rajasthan). Vikas GlobalOne has invested Rs 1.5 crore in its greenfield UPVC compounds project, which will have annual capacity of around 2500 MT per annum. The project is expected to generate revenues of around Rs 15 crores per year. The market for UPVC pipes, tubes and fittings is increasing at annual rate of 12% for last five years. Lubrizol Advanced Material India Pvt. Ltd. is eyeing a bigger share of the Indian chlorinated polyvinyl chloride (CPVC) compound market when its new facility in Gujarat begins operations. The company has invested \$50-mn towards setting up the manufacturing unit at Dahej with an installed capacity of 50,000-tpa of compounds. The plant will be commissioned by mid-2015. According to the company after commissioning of the Dahej plant Lubrizol will be able to capture nearly 55-60% of India's CPVC compounds market. Finolex Industries, a manufacturer of PVC resin and pipes & fittings, has decided to focus on the latter rather than on the resin business, which requires more capital for expansion. The Pune-based company has also dropped plans to build a fourth pipes manufacturing plant in India. Instead, it plans to enhance capacity at its three existing plants in a phased manner. The company is adding 30,000-tpa additional capacity for pipes & fittings through brownfield expansion at its units at Pune, Ratnagiri and Masar, over the next three years, at a capex of Rs. 90-crore, which will take the company's total capacity to 320,000-tpa. The resin business currently accounts for around 40% of Finolex's top line (Rs. 2,453-crore in FY14), and the company expects to grow at 15-20% a year, with the share of revenue from pipes & fittings growing. One of India's largest plastics processors, Supreme Industries Ltd., plans to open a PVC pipe and packaging plant in West Bengal state in its current fiscal year, as part of an effort to boost capital spending by one-third to 200 crore rupee (\$33.27 million), which will likely be functional in the second half of 2015. This plant is the 24th unit of Supreme Industries, which would initially produce 25,000 tonnes plus PVC pipe and fittings and 10,000 tonnes of protective packaging.

PRICING:

Effective October 1, 2014, Evonik Industries AG increased prices 6% for all PMMA sheet, rod and tube products including Plexiglas® and DeGlas®. PP, PS, PE and PVC resin prices are rising single

digits on a cents per pound basis. Short term trends are for ETP, including nylon 6 , flouropolymers, as well as HPM's to increase single digits. MMA, PC and ABS are holding firm, but expect single digit upward pressure in 4Q 2014.

MANUFACTURER/DISTRIBUTOR BRIEFS:

Factoid: This year is the 75th anniversary of the debut of **nylon** by DuPont...Delaware was its first name, rejected in favor of nylon, which was not trademarked partly as a result of their losing a lawsuit to Sylvania over the name "cellophane". Quadrant EPP introduces Tivar HPV®, a dry running UHMW sliding material for conveyor systems. *Plastics News* 2014 Film & Sheet survey lists the number of manufacturers to total 425, of which acrylic show 15 and ABS/PC 16; PVC: 34; PS:38; PP:79 and PE: 132. Whilest Bayer is spinning off its MaterialScience business, it is also consolidating its PC sheet business in Europe and the Pacific Rim as well as in China...from ten global plants to approximately 7. Victrex plc launches new website for its PEEK and PAEK product line. The railroad industry has attracted interest in interior applications from SABIC: anti graffiti PC sheet; Bayer: light weight flame retardant PC sheet; and Quadrant EPP: self-lubricating machinable ETP's

MERGERS, ACQUISITIONS, ALLIANCES, DIVESTITURES AND EXPANSIONS:

Bayer AG will spin off its MaterialScience business (PC sheet and resin and PU resins) into a new entity to be called MaterialScience – the effect on its Sheffield plant and product line uncertain. Following the divestiture the new company will have annual revenues of \$14 billion and 17,000 employees. Bayer will be focusing on medical and agricultural businesses. Is DuPont the next petrochemical giant to follow this strategy? Kydex LLC and Allen Extruders are combined by owner Sekisui Chemical, (annual sales of \$11 billion) forming a new entity to be named Sekisui SPI. Sekisui bought Kydex in 1987 and Allen (annual sales of \$50 million) in 2007. Primex expands production capacity and opens R&D center. Inteplast Group buys Coroplast and expands into corrugated sheet. Solvay SA is buying the Ryton brand PPS business from Chevron Phillips Chemical for \$220 million...includes four facilities in the U.S. and one in Belgium. Plaskolite acquires Specchidea, Italian mirror sheet producer (see INDUSTRY INTERVIEWS below). Blackfriars Group, via its Laird Plastics unit, buys Denver CO based fabricator RMI Plastics. In the pipe sector, Mexichem buys HDPE extruder Dura-Line and Invista enters the nylon 6/6 pipe market place by introducing its Raptor brand.

INDUSTRY INTERVIEWS: Donald Dunn, CEO and President, and Mitch Grindley, V.P. Sales and Marketing, Plaskolite, Inc.

We interviewed Mitch by phone and email from his office in Columbus, Ohio. Donald Dunn, co-founder, sent us the following email:

"Plaskolite became a viable business in April 1950, three months before President Truman declared war on South Korea. The operation was modest indeed, running off-grade cellulose acetate through a hand-built extrusion "machine"; the finished product to be tubing of one-eighth inch diameter. This tubing, after cooling was chopped into eight inch long pieces, packed in cake boxes, to be packed again in small transparent bags of six straws each. The bags were then sold again in five and ten cent stores, for maybe a dime a bag.

A year or so later we advanced with a second product, a "life-time" plastic fly swatter. We were managed by myself and by Norris Olsen, each of us less than thirty years of age. Each of us having been soldiers in World War II, each of us having finished college, paid for in part by the GI Bill. We had wives, then children, slowly built the business.

A big step was to start extruding acrylic into fluorescent lenses. Several other companies started at about

the same time. The three companies were fierce competitors for many years: KSH of Saint Louis, J. W. Carroll of California and Plaskolite. The principals of those companies have been dead for a long time, but their businesses continue on under the ownership of Plaskolite. Norris Olsen left Plaskolite in 1967, moved to Vero Beach and became a stock broker, alive and vertical at age 90. I am 91, retired from management, still active with friends and family. I watch from a distance with pride as Plaskolite continues to grow under the team of some of our children and grandchildren and the great men whom I helped recruit: the Grindley twins, Mitch and Mark; David Chan and Rick Larkin.

Jim Dunn is the son whom Mary and I designated to look after the company for the benefit of all of us. He is a much better manager than I was. He better not sell the company after I leave the planet, but if he does I will send down lightning to burn him and his team.

You asked what I think the year 2023 will be like in acrylic sheet production. I would guess that there might be only Plaskolite left in the business!"

Mitch Grindley replied to our Questions as follows:

Q. When was your first acquisition? Which company?

A. In 1994 Plaskolite acquired Mir-Acryl from Gordon Noakes. Since then we have made 13 acquisitions and have opened or acquired seven manufacturing plants: Columbus-OH, Zanesville-OH, Olive Branch-MS, Grand Saline-TX, Compton- CA, Monterrey-Mexico and Malatya-Turkey (1st Quarter of 2015).

Q. Why did you get into the acrylic mirror business?

A. Getting into the acrylic mirror business was a long process. We knew that it was a natural fit for our business, since the substrate was acrylic. For many years we worked on developing an acceptable substrate to mirrorize. We continued to invest in new technology. Our efforts not only gave us acceptable substrate, but the highest quality sheet in the industry. This high quality sheet opened up many new markets for Plaskolite.

Q. What's behind the flurry of M&A activity in 2013-2014?

A. Plaskolite's business strategy is not complicated. We have and will continue to look for strategic acquisitions that strengthen our distributors. We want our distributors to continue to be the leaders in the industry. Our distributors have always been the strength of Plaskolite. We fully support them as our avenue to go to market. There seems to be a trend to limit territories for distributors or go direct. I have been asked if Plaskolite will follow this trend. My answer is Plaskolite's strategy is long term. We believe the best way to market is through our distributors, who do an unbelievable job representing our and other manufacturer products.

Q. Where does Plaskolite rank in size of acrylic sheet producers, by pounds produced, compared to the original "Big Three": Rohm ~ Haas (now Atuglas/Arkema); American Cyanamid/Cyro (now Evonik) and DuPont (now Lucite Intl). What is your global capacity in pounds of sheet, both unclad and mirrored?

A. Plaskolite currently ranks number one domestically, about double the sales of Arkema and Evonik (Plastics News, September 16, 2013). It is always nice to be the leader, but with that comes responsibility. We continue to invest and look for new products which benefit our customers. Being a private company has its advantages, one of them is you have the freedom to develop long-term strategies. We have seen many past number one acrylic manufacturers become complacent as a result they are no longer manufacturing or have sold their business. Plaskolite works very hard to not follow down that path.

...to be continued in the November-December 2014 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

Fax Number: 248/593-0095

E-mail: mettenson@globalplasticsletter.com

Website: www.globalplasticsletter.com