



GLOBAL PLASTICS LETTER

AUGUST 2000

Dear Colleague:

The Summer of 2000 appears to be an unprecedented one in terms of news-making events – the traditional slowdown did not take place and the pace of industry-changing actions accelerated. With price increases coming at warp speed ; with mergers and alliances being announced daily ; with consolidations changing the face of our industry – and of course the constant shifting of internet initiatives – well the business model looks entirely new for the second half of 2000.

Look for inflation to settle down in the second half of the year as gas prices drift lower and interest rate hikes cool spending. By year end ...prices at least 3% higher than in Dec. of '99. The core inflation rate , excluding food and energy prices should wind up the year at about 2.5% over year earlier. Then comes the election and the economy will continue to cool and stay just this side of recession. However , if the trade gap widens it's possible for the dollar to fall with interest rates soaring – combined with high energy prices – could trigger a slowdown. Caution is the watchword and cost containment must quicken.

Overshadowing the gloomy outlook , are statistics coming from the U.S. Federal Reserve Board Industrial Production Index – Rubber and Plastic Products business indicator index is at 140.9. With 1992=100 , the state of the plastics industry's production is good.

Meanwhile, in Europe , prices are up on MMA and PC sheet , with PC resin and sheet shortages contributory . We hear from our European sources that Rohm may get out of the PC business – Bayer of course committed to PC , is now converting PETG into sheet , while a great deal of PC sheet from India is being exported to Europe. Amari may be in play with several suitors showing up from Germany and elsewhere. At the moment the lineup of sheet producers in Europe looks like this:
MMA - Barlo , Ineos , Atochem , (in the process of changing name to Atofina), and Rohm.
PC – Rohm , Bayer , GE , Barlo , and Arla(Sweden).

In Germany, production of plastics was up 7.6% in 1999, with plant utilization rates at 90% . Construction markets and applications account for 26% of the total . Trade is overwhelmingly inter-European with exports increasing and imports decreasing – especially from Asia.(Source: VKE Plastics producers association)

In Thailand , weathering the 1997 economic crisis , the plastics industry exported US\$178 million – ranking fifth in the nation's exports and growing. GE is investing US\$20 million in an engineering plastics plant with export sales estimated at four times that in five years.Bayer Thai is already on stream with a similar size and product mix plant.(Source: Asian PlasticsNews).
Watch Iran as the next evolving petrochemical producing country.

PRICING FORECASTS: The trend is mixed—some prices spiraling upward , while others are under pressure to resist increases. Led by PC, where shortages of resin have resulted in allocations , due to plant difficulties such as fires (Bayer in Texas), phosgene leakage (Mitsubishi in Asia), design fault in new plant (GE in Spain) – many prices are continuously going up. Add China's continuing shortage of domestic resin capacity to fuel its export-driven industry – this adds demand to the side of the equation and you have economic reasons for inflation in plastic pricing that are in addition to high energy prices.

HDPE prices have risen steadily for the last 18 months due to high demand and rising feedstock costs – two increases in the last four months with a third one pending. Saudi Basic Industries is racing to add capacity to fill this demand. *Force majeure* , after a long respite had reared its head with Atofina and BP declaring this for ethylene and propylene deliveries in Europe -price increases followed in July . Watch nylon – prices have been increased 8-10% on nylon fiber ... resin may be next. Acetal will go up soon as well – higher natural gas prices being the driver.

Thermoset resins are following the thermoplastic trend with phenol ,polyester and vinyl ester due for .03-.05 cents per pound increases on Aug 14 (source: PLASTICS Daily News). This has immediately resulted in 4-5% increases in prices for Extren® sheet , grating and decking from Strongwell , effective in July.

Some decreases in spot prices are reported with ABS and styrene , with LDPE stable. Overall , look for continued single digit inflation in most products for the 3Q 2000.

TRENDS: The internet enhances the globalization of our industry and as it removes geographical and time zone barriers , opportunities abound for accelerating trade thus strengthening economies everywhere. (As an aside – e-mail us for a copy of our publication “Plastic, Globally Speaking” which is a listing of the 18 versions of the word “plastic”around the globe)

In a survey recently conducted by *Industrial Distribution* magazine , 68 percent of distributors today have websites , while 59 percent also report that they have actually sold product from their site – although most get orders via e-mail and then manually process them –not true e-commerce.

E-mail has become the communication tool of choice and should be maximized prior to moving on to e-commerce.

When ready for that step – check out the informational websites first – an exemplary site is www.plasticlink.com which provides every tool needed from information to an online market place. This innovative venture can offer the small to mid-size regional distributor as well as the manufacturers who support them an instant e-commerce presence.

As the large distributors grow and merge , they need returns that are never going to be fueled by small and midsize accounts – creating a market segment for the regional distributor who can provide next-day service in a specific geographic area.

Manufacturers are continuing to align with each other for b-2-b purposes – Elmica is the newest to trade chemicals online with Ashland , Atofina , BASF , Bayer , Ciba , Dow , DuPont , Celanese , Mitsui , Mitsubishi , Rhodia , Rohm and Haas , Shell and all the others in feedstocks.

When coupled with the resin website alliance www.Omnexus.com , which goes live in October , will there be any competitors who are not aligned? And how does this affect future pricing?

A new example of manufacturers interfacing with users via the internet is GE's Aircraft Engine's (GEAE) website. Pictures of engine parts act as instant-order buttons – click on one and up comes an order form . Yes this will happen in all industries- for a look at the future of e-commerce click on www.ge.com and the link for GEAE.

MERGERS, ACQUISITIONS, ALLIANCES, AND EXPANSIONS: Ineos Acrylics (successor to ICI) has acquired Acrylic Products, South Africa, the leading producer of acrylic sheet in that growing region and Bonar Polymers, UK, producer of specialty acrylic resin – this continues to reinforce Ineos' commitment to the MMA business.

Norton Co., now part of the Saint Gobain Plastics group has acquired Chemfab of New Hampshire, manufacturer of Teflon coated sheet – extending its reach into the high performance shapes business.

BP (British Petroleum) has dropped the Amoco name from its recent BPAmoco merger, thus Torlon resin is now a BP Product.

ChemMatch.com has added financial services to its list of web offerings for chemicals and plastics traders – who now have access to various credit lines for purchasing products on-line.

GE Plastics has closed on their purchase of Cadillac Plastic world-wide and simultaneously M.A. Hanna has sold its interests in Cadillac Germany, France, and Spain to ThyssenKrupp of Germany – the joint ventures (with Rohm) that GE did not want.

Cameron & Barkley, S.C. based integrated supplier (US\$850 million sales annually) who include plastics shapes in their product line, are being acquired by Hagemeyer PPS of the Netherlands.

Another global giant in plastics looming? – said to be interested on outsourcing, one-stop-shopping and e-commerce trends in industrial, electrical, safety, and plastic MRO products.

DISTRIBUTOR/MANUFACTURER BRIEFS: Mitsubishi Rayon has plans to install a 100-150 ton/yr production unit for MMA monomer in Texas. Eastman Chemical introduces She Bei Da copolyester in China – with converted sheet changing the “face” of its sign industry. Their Provista PETG product is purported to be recyclable, UV resistant and ideal for profile extrusion. GE Plastics is expected to close its purchase of Commercial Plastics this month, giving this leviathan an overwhelming market share of PC sheet – what will they do with MMA and other products?

Curbell announces a frequent buyer program called “Take Off” – users of engineering plastics get points for dollars spent which can be redeemed for material credit or airline gift certificates. Program runs thru 12/31/01. Dupont announces a doubling of capacity for LCP resins.

Ineos Acrylics will increase MMA monomer capacity and expands sheet production plant in MS to provide a capacity increase of 45 million lbs/year – to 175 million. In the UK they are putting up an ethylene-based MMA pilot plant.

WEBSITES OF INTEREST: Another month brings a deluge of new plastic websites –to wit:

www.plastics.com, www.plasticscommerce.com, www.getPlastics.com, www.plasticspds.com,

a new development is a specialized site – this one is for HDPE cutting boards: www.nfpradan.com.

Continuing on with sites just up: www.allplastx.com, www.plasticsnet.com, www.fobplastics.com,

www.polymersite.com, www.apexq.com, www.holscott.com, www.bip-etp.com. – and the list grows every

day. Speaking of growing, **we are pleased to announce our new web-site** which is up and running – it is: www.globalplastics.com. Please e-mail us (at mettenson@globalplasticsletter.com) your e-mail address and/or web-site so we can more effectively communicate with you – our subscribers. See you on line!

INDUSTRY INTERVIEWS: Earl Wester, V.P.- Worldwide Marketing for DSM's Engineering PlasticProducts. He joined DSM in 1986 to manage sales and marketing for Sheffield Plastics and Polymer Corp. Previously he held sales and marketing management positions with GE Plastics, including the Lexan sheet and film business. We interviewed him via e-mail from his offices in Reading, PA – just prior to departing on one of his frequent global trips.

GLOBAL PLASTICS LETTER (GPL): Some of your competitors have been expanding, consolidating, and acquiring related businesses – DSM EPP's history has been one of shedding operations – will this continue?

EARL WESTER (EW): *Shedding operations? Recently we made two significant acquisitions for compression molding to strengthen our shapes position. Along with production investments, we've added about 30% to our shapes capacity in three years. That's the point: we concentrate on engineering plastic stock shapes for machining. During this time, we did sell off small activities such as tubing, strip, profiles and machining – there are other companies better at it and these operations distracted us from our core business and we couldn't support our customers in the way they deserve. We've chosen our course, customers are better served, we're growing across all product lines, and we're a lot stronger in our core shapes business today.*

GPL: When did your predecessor company, Polymer Corp. begin extrusion and casting?

EW: *Louis Stott started the shapes business in Reading, PA in 1946 – he had extrusion and casting underway by 1950 as the Polymer Corp.*

GPL: Since you began with nylon, is it still your leading product today, in terms of pounds produced? If not, what is?

EW: *If you add cast and extruded nylon, its right up there with acetal which is growing faster – originally it cannibalized nylon, but now each product is chosen on its own merits.*

GPL: What percentage of your entire product line goes through distribution?

EW: *Pure distribution means our shape is resold as a shape – and I'd guess that's around 75%. If you count distributors who also machine and sell our shapes as finished parts – the number is about 90%. There's definitely been a shift in how our partners sell our products.*

GPL: What is the product mix of nylon vs acetal vs high performance materials (HPM)?

EW: *Everyone has a different HPM mix – we include modified products that are proprietary and have special performance features – in round numbers I'd say HPM are 30% compared to standard grades of nylon and acetal.*

GPL: Where do you see the biggest growth for your product lines in the future? Which will be the fastest growing materials?

EW: *HPM like PEEK, Ultem, Torlon, Vespel – they extend the useable range of applications for plastics in new high-tech markets. It's tough and costly getting out the word to OEM's – we're getting better at it and it shows in revenue growth.*

GPL: Will GE's acquiring of Cadillac Plastic change your strategy for distribution? How?

EW: *We have to sustain our growth and market share, for ourselves and our channel partners. If a distributor won't work with us to get there, regardless of parentage, we'll have to consider options to stay healthy – I don't think that GE will have an adverse effect on Cadillac as a partner of ours. Could bring more strength, in fact.*

GPL: How will your business change, if at all, with the advent of e-commerce and b2b initiatives by many manufacturers? Who in your company is responsible for strategic planning for this?

EW: *You can be sure that the actual buyer/consumer of the shape will force out of the system any non-value adding activities. ...the internet has the potential to do transactions better and transfer information – as in other industries – we're purchasing that way from our suppliers...the challenge lies in capitalizing on the opportunities e-commerce affords us all – Terry Folk is pulling this together for DSM – globally*
...TO BE CONTINUED...SEE SEPTEMBER 2000 GLOBAL PLASTICS LETTER