SolVin to expand PVC production in Europe as demand climbs

THE PVC joint venture between Solvay and BASF, SolVin, is to expand its plant in Jemeppe, Belgium, by 75,000 tonnes to 475,000 tonnes by 2009.

SolVin says the global market for vinyls has grown by more than 6 per cent annually in recent years and is expanding by nearly 15 per cent per annum in Eastern Europe and China. In the European Union the market has expanded significantly, with 600,000 tonnes of additional PVC consumption since 2005.

In China, says SolVin, there are increasing restrictions on expanding PVC production because of environmental concerns over the acetylene-based process used there. 'By contrast, the ethylene-based technology implemented by SolVin consumes 50 per cent less energy, with a considerably reduced environmental impact.'

SolVin has a total annual production capacity of 1·3 million tonnes of PVC.

EC to take a second look at Ineos' takeover of Hydro PVC business

THE European Commission has put a hold on Ineos' acquisition of the Norsk Hydro PVC business now known as Kerling. It has opened an in-depth investigation into the takeover because of the strong position it would give Ineos in suspension PVC, particularly in the British market.

The Commission's decision for a further review is based on its initial findings that the S-PVC market appears to be national, rather than Europe-wide. If this is the case, it says that Ineos would be in such a strong position in certain states, in particular the UK, Norway and Sweden, that other suppliers from Continental Europe would be unable to exert sufficient competitive pressure to prevent Ineos from increasing prices.

During the first phase of the investigation ahead of the takeover, Ineos submitted undertakings aimed at removing the competitive concerns identified by the Commission. However, says the Commission, 'in light of the market test and the analysis carried out by the Commission, these undertakings proved to be unsatisfactory and insufficient as they failed, in particular, to eliminate competition concerns in the UK S-PVC market.'

The Commission's second phase investigation – which could take until January 11, 2008 – will focus on the UK S-PVC market, but will also analyse the impact of the transaction in other national markets, in particular Norway and Sweden, as well as the impact on the market for caustic soda, S-PVC compounds and rigid PVC films.

Ineos described the EC's decision as 'disappointing' but said it was confident it would be able to work through the process and provide the Commission with the information it needs to ensure completion of the acquisition.

ExxonMobil to go ahead with new Singapore ethylene complex

EXXONMOBIL Chemical is to proceed with a second world-scale steam cracker complex in Singapore. The company has completed a detailed study, started in 2005, and now confirmed that the project will go ahead. The first Singapore cracker, with what was then the largest single reactor polyethylene plant of its type in the world at 480,000 tonnes, was opened in 2001.

The new plant, which will be located at the existing facility, will include a million tonnes ethylene steam cracker, two 650,000 tonnes polyethylene units, a 450,000 tonnes polypropylene unit, a 300,000 tonnes specialty elastomers unit, an aromatics extraction unit to produce 340,000 tonnes annually of benzene and an oxo-alcohol expansion plant of 125,000 tonnes. Project start-up is expected in early 2011.

Dow joins in sugar-to-PE development in Brazil

A PLANT to make polyethylene from ethanol derived from sugar cane is to be built in Brazil by Dow Chemical and Crystalserv, a sugar cane specialist and one of Brazil's largest ethanol producers. The 350,000 tonnes plant is expected to be on line in 2011.

The plant will use Dow's proprietary solution technology to make Dowlex LLDPE, which Dow says will be identical at the molecular level to Dowlex made with petrochemical feedstocks. This means that Dowlex users can switch to a renewable resource-based plastic with no changes needed to their processes, and the sugar cane-based polyethylene would be fully recyclable using existing infrastructure.

The two companies have begun a feasibility study to assess various aspects of the project. The study, which is expected to take one year, will also look at the possibility of receiving approval for the project and the process as a Clean Development Mechanism, developed by the United Nations to help companies manage their carbon credits from emerging market projects.

Dow says the areas being considered as potential sites for the new facility are currently being used for low-density cattle grazing and are not near any rain forests. Both companies have underscored their commitment to ensuring that the plant is located in a sustainable environment.

Last month we reported that another Brazilian company, Braskem, is soon to start customer acceptance trials of a high density polyethylene made entirely from sugar cane-derived ethanol, with manufacture in industrial quantities expected in 2009.

Bayer adds more capacity for carbon nanotubes

ANOTHER step on the way to industrial scale production of carbon nanotubes has been taken by Bayer Materialscience with the opening of a 30 tonnes plant at its former subsidiary company – sold to fund the Schering acquisition last year – of H C Starck in Laufenburg on the German-Swiss border. The new plant doubles Bayer's capacity at Laufenburg, but is still a long way from the 3,000 tonnes plant that is Bayer's declared aim.

Carbon nanotubes have been particularly difficult to produce because of the high costs of synthesis and the relatively large quantities of unwanted impurities in the product. But Bayer has developed a process for its Baytubes material which it says makes it one of the few manufacturers able to offer commercially relevant quantities of CNT with consistent material purities well above the 95 per cent mark. The new automated closed-loop plant at Laufenberg is intended to provide experience to feed into the next scale-up of the process.

CTS to increase TPE capacity

CAPACITY for Tessenderlo's Téfabloc TPE materials is to be increased by 40 per cent. The Compounding Technology Services plant in Tiffauges, France, is being extended to more than 25,000 tonnes in a €3·5 million investment which includes the installation of a Maris compounder, the biggest in the range, with an 8,000 tonnes annual capacity.

Téfabloc TPEs are mainly SBS-based, but the series includes hydrogenated styrenic block copolymers for automotive sealing applications.

recent price increases

Material	Manufacturer	Increase	Effective date
Thermoplastic moulding materials			
Polyethylene	Dow Europe	€50/tonne on LDPE, HDPE, Dowlex, Attane ULDPE copolymers, Elite enhanced polyethylene resins and Aspun fibre grade polyethylenes.	September 1
Polypropylene	SABIC	€75/tonne.	July 1
Acrylic	Altuglas International	€100/tonne on PMMA resins.	October 1
Polyurethanes			
	Chemtura Corporation	€200/tonne on most urethane prepolymers and curatives.	September 1
Composites materials			
	Bayer MaterialScience	Average €150/tonne on hydroxyacrylates, unsaturated polyester resins and alkyd resins.	September 15
Additives			
Fillers and reinforcements	Degussa	€60/tonne on rubber silica.	November 1
Flame retardants	Chemtura	off-list increase of $250/tonne for BA-59P flame retardant (tetrabrominobisphenol A).	September 1
Heat stabilisers	Chemtura Corporation	Global temporary surcharge of $90 - $490/tonne on all organotin stabilizers.	September 1
UV stabilisers	Ciba	5 - 10 per cent on Tinuvin benzotriazole UV absorbers globally.	September 10
Miscellaneous	BASF	5 - 20 per cent increase across colorants and additives globally.	July 24

Bayer researches giant MDI plant for Europe

BAYER MaterialScience is examining the case for a 400,000 tonnes methylene diphenyl diisocyanate (MDI) plant in Europe for 2012 start-up. It has started a feasibility study and expects to make a decision next year. Such a plant would bring Bayer's worldwide capacity up to 1,850,000 tonnes – including the 350,000 tonnes currently being built at Shanghai in China.

European demand for MDI is estimated to be growing at 6 per cent annually and to keep pace Bayer last year increased its capacities at Krefeld-Uerdingen in Germany and Tarragona in Spain to 200,000 and 150,000 tonnes respectively. More improvements to existing capacity are scheduled before the new plant would be completed.

The new European plant would be the first to use a phosgenation process to cut investment costs, energy consumption and emissions. Bayer is already implementing its gas-phase phosgenation process to produce TDI in China. It would also be a fully-integrated plant, incorporating the production of the precursors nitrobenzene, aniline and diphenylmethane diamine (MDA).

Dow, Solvay and BASF link upstream of Thai polyurethanes

A THREE-cornered investment in South East Asia is set to boost polyurethanes production in the region. Dow Chemical and Solvay are to build a hydrogen peroxide plant in Thailand and Dow and BASF are planning a plant to convert this hydrogen peroxide to propylene oxide using their innovative HPPO process. Propylene oxide is a feedstock for polyether polyols.

The HP plant will be the biggest in the world at 330,000 tonnes and will start production in 2010. It will use Solvay's proprietary, high-yield hydrogen peroxide technology.

The 390,000 tonnes PO plant planned by Dow and BASF for Map Ta Phut in Thailand will be the second to adopt the process developed by the two companies five years ago. The partners are currently building a 300,000 tonnes plant in Antwerp, Belgium, scheduled for start-up in early 2008. This is also to be fed by Solvay's high yield HP process.

The HPPO process creates no by-products other than water and plants using it are smaller, need less infrastructure and require a significantly lower investment compared with conventional PO production processes.

Propylene for the HPPO plant in Thailand would be supplied from the liquids cracker that Dow is building jointly with The Siam Cement Group and expected be operational in 2010.

Sumitomo to buy Asahi Kasei PP compounds plant in Havant

AS part of a bid to expand sales of polypropylene compounds in the Western automotive industry Sumitomo Chemical of Japan is to acquire the Asahi Kasei Chemicals PP compounding plant at Havant near Portsmouth, currently trading as AK & N (UK). The 40,000 tonnes plant is owned 65 per cent by Asahi Kasei and 35 per cent by Planesa, a Belgium-based holding company which coordinates the plastics operations of four Nichimen Group companies in Europe. AK & N has a 20,000 tonnes plant in Marseilles, France, which will also be included in the acquisition.

Sumitomo will rename the business Sumika Polymer Compounds Europe. It will be a joint venture between itself (50 per cent) and the Itochu Group and Toyo Ink Group, which will each hold 25 per cent. Sumitomo is also linking with Toyo Ink to set up a compounding business in the USA. This will be called Sumika Polymer Compounds America and will run separately from its other US PP business, the Phillips Sumika Polypropylene Company 50:50 joint venture it has with Chevron Phillips Chemical Co making Marlex brand polypropylenes.

The new company will build a 26,000 tonnes compounding plant for start up in early 2009 and will be based near Atlanta in Georgia. It will be owned 55 per cent by Sumitomo and 45 per cent by Toyo Ink.

Last year Sumitomo set up Zhuhai Sumika Polymer Compounds Co in China with a capacity of 10,000 tonnes of PP compounds, and is studying plans for further expansion.

Polypropylene is one of Sumitomo Chemical's core petrochemical businesses. It has a capacity of around 2 million tonnes from four plants – in Japan, the USA and Singapore with the fourth due on stream at its petrochemicals joint venture with The Saudi Arabian Oil Company in Rabigh, Saudi Arabia, towards the end of 2008.

Bayer plans polycarbonate compounding investments

A DAY after it revealed the sale of its share in the Exatec business (see page 51) and expectations of rapid growth in polycarbonate automotive glazing, Bayer MaterialScience announced a €20 million investment in polycarbonate compounding in Germany and plans for polycarbonate compounding plants in China and India.

The German investment, at Krefeld-Uerdingen, will bring a new logistics centre for storing, mixing and packing Makrolon and the polycarbonate blends Bayblend and Makroblend. A 130,000 tonnes storage silo will be built for direct filling, enabling gentle mixing, dust removal and packing of granules. The silo will give a high material throughput, which Bayer says benefits both product quality and supply flexibility. The capacity would be expandable to 180,000 tonnes.

As well as the supply logistics, the new facility is intended to improve product quality. Each production line will be assigned to a filling unit, with granules being transported to blending silos using processes that minimise dust build-up in the granules. Mobile filling stations will be used for packing 25 kg bags and bulk containers. The filling procedure is said to be particularly gentle on the product as it works by gravity.

The initial expansion phase in Germany is scheduled to begin at the end of 2008. Earlier in the year Bayer expects to start up a compounding plant for Makrolon and its blends in southern China. A further Asian compounding plant is to be built in New Delhi, India, for start-up at the end of 2008. Bayer is currently doubling the capacity of its 100,000 tonnes polycarbonate plant in China.

Borouge to make automotive PP compounds in China

BOROUGE is to build a compounding plant in China to make polypropylene compounds for the automotive and electrical appliance sectors. The 50,000 tonnes facility will be built near Shanghai and will be supplied with PP from the Borouge plant at Ruwais in Abu Dhabi. Borouge will initially target companies such as VW, GM and PSA operating in China, but expects eventually to sell to other Asian markets and companies in the Middle East.

The Ruwais facility is currently being expanded under the Borouge 2 project, which will triple its annual capacity to 2 million tonnes of polyolefins. The Chinese compounding plant will enable the production for the first time of polypropylene matrix materials – compounds with mineral or glass fillers. Borouge 2 and the new Chinese compounding plant are expected to be on stream in 2010.

China is the world's fastest growing automotive market and expects to become the biggest car producer in the world within the next 10 years.

DuPont adds more Korean nylon compound capacity

DEMAND in Asia for its Zytel nylons has led to a 20,000 tonnes expansion at DuPont's Ulsan, Korea, compounding plant. DuPont is planning to invest some $200 million in its engineering polymers business over the next three years, and over the past three years has spent more than $200 million, much of it in Asia.

Azelis expands in the Alps and in the UK

CHEMICALS and plastics distributor Azelis has increased its European coverage with the acquisition of two Swiss companies, Heinz Schlegel and Meister, and their formation into a new operating division, Azelis Alpine. Azelis says the new company will enable it to start operating in Switzerland and Austria.

Schlegel and Meister were sister companies, with Meister making a range of additives under its own name which Azelis will now sell elsewhere in Europe. Their combined sales in 2006 were €15 million, with eight staff.

In Britain Azelis subsidiary Chance & Hunt is to buy Kemira Growhow's Process Chemicals business based at Ince in Cheshire. Included in the Process Chemicals portfolio are rubber processing chemicals.

A million more tonnes of PET planned for the USA by M&G

FAMILY-owned PET giant M&G Group is to build a single line 800,000 tonnes plant in the USA. It will use the same technology as the 450,000 tonnes Suape, Brazil plant which came on-stream in Q1 2007 and has been running at full nominal capacity. The new American plant will be built to produce 650,000 tonnes and the rest of the capacity will be added as needed. The site has yet to be announced.

As well building a new plant, M&G is streamlining operations at its plants in Apple Grove, West Virginia and Altamira, Mexico, to produce an additional 200,000 tonnes capacity which should be available in 2007 - 08.

M&G says it has already secured PTA feedstock supply to support its North American investment programme.

With these investments M&G lays claim to being the world's biggest PET producer. Chief executive Marco Ghisolo said: 'We expect that continued strong PET demand growth, partial execution and delays in our competitors' previously announced investment programmes, and increasingly constrained and costly imports, will contribute to a significant PET capacity shortage in the US by the year 2009...we feel it is our responsibility to bridge the expected capacity gap to support our contract customers.'