price

know–how

2012 Review & 2013 Outlook

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2012 Review & 2013 Outlook

The price know-how concept was conceived as a result of customer feedback on a media article published in 2011 concerning business prospects for the year ahead and, in particular, views on the outlook for polymer prices.

In September 2011 as part of the Plastribution brand re-launch, price know-how was introduced. On a monthly basis this publication provides a unique review of the polymer market from a UK perspective, in which oil prices, feedstocks and generic polymers are evaluated using £ per tonne as a common unit of measure.

In this latest iteration of the price know-how concept, the publication aims to provide an assessment of what has happened in the UK polymer market over the past year and what may happen in the year ahead.

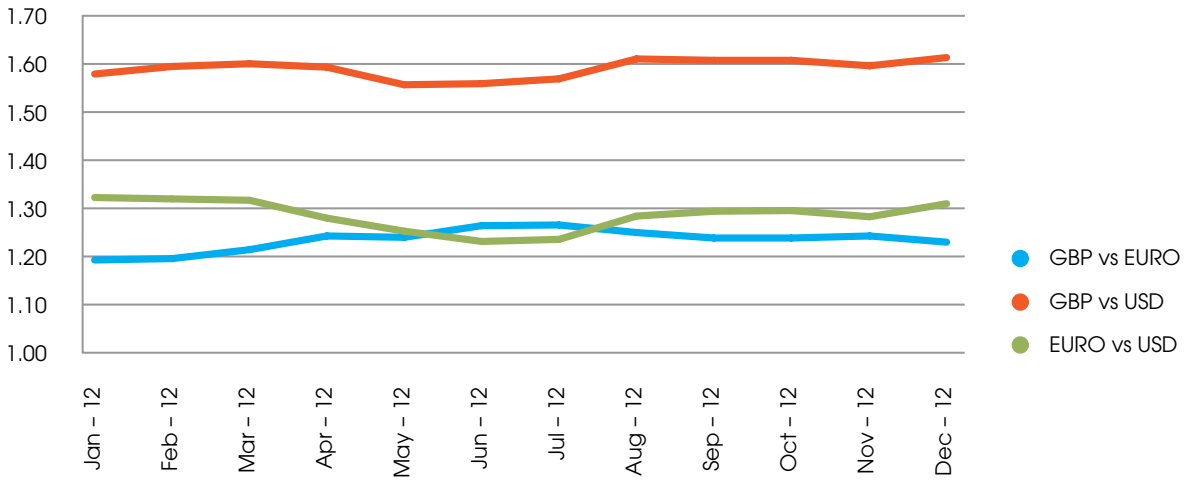
There is, of course, a strong need to emphasise the phrase 'what may happen', since the global polymer market is incredibly volatile and prices are often influenced by a wide range of both obvious and sometimes subtle drivers.

Given that the cost of the polymer raw material can often represent between 40% & 70% of the input costs for a plastics processor, and that over the last four years the cost of our 'Polyolefin Basket' of products has varied by almost 100%, it is clear that managing the volatility is a key factor in determining profitability.

Plastic processors commonly face the additional burden that since polymer pricing is heavily influenced by oil prices, high raw material costs commonly coincide with high energy and transport costs, so resulting in additional margin pressures.

From a business perspective, the whole environment was dominated by the woes of the global economy, with Europe and America struggling to recover from the impact of the 2007 economic crisis.

2012 Exchange Rates



Whilst the UK avoided the pressures faced in the Southern European countries, many parts of the economy struggled.

Through a lack of economic growth, the country found itself in the grips of a 'double-dip' recession, albeit that the UK economy returned to growth in the final quarter largely based upon some special factors.

In the manufacturing sector there was a very mixed picture, where demand for non-durables appeared to be quite robust. In the durables sector the automotive industry was exceptional with record numbers produced, more cars exported than imported, and strong demand from the private buyers.

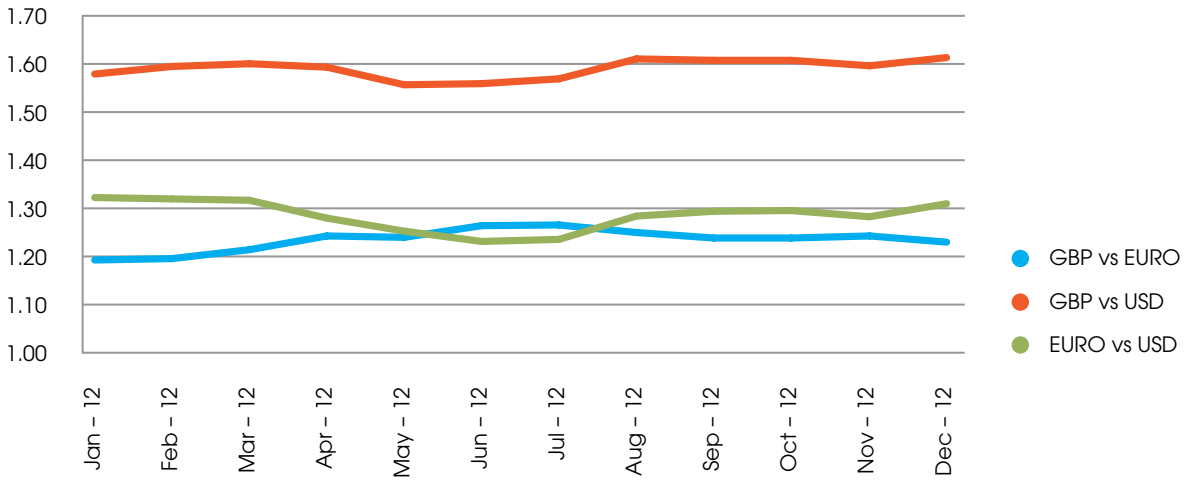
Exchange rates are a significant factor affecting both exports and imports, and the devaluation of £ vs. Euro following the 2007 economic crisis has been a major factor influencing UK manufacturing.

Following the drop from €1.50 down to a low of €1.05, the £ remained relatively stable against both the € and the $ throughout 2012.

Polymer and feedstock price data provided by PIE. www.pieweb.com

The influence of the € vs. $ will be discussed later, but, as the graph depicts, there was a period of significant weakness resulting from the issues in the Eurozone PIIGS countries.

2012 Exchange Rates



The devaluation of sterling has been a major factor influencing the UK plastics sector. Following an extensive period in which, from a manufacturing perspective, sterling was over-valued and UK plastics manufacturing declined, more recently we have seen that a weaker sterling has helped UK manufacturing become more competitive on the global stage.

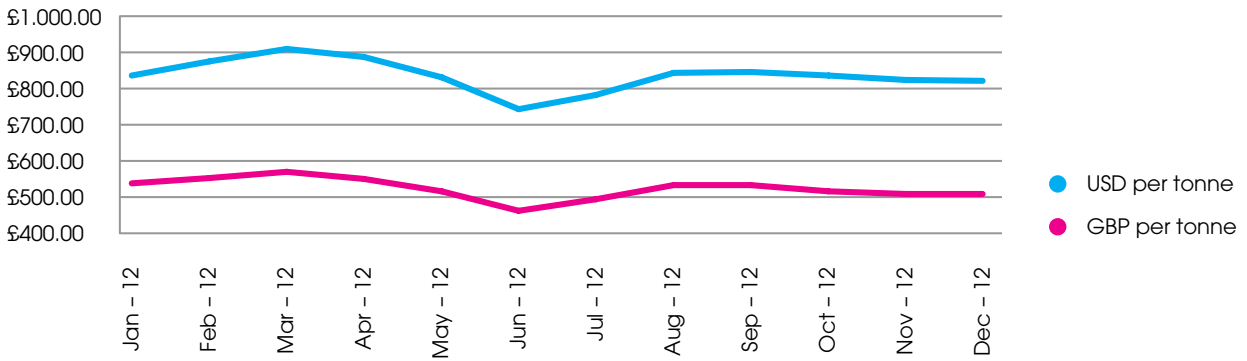
This, along with the issues raised by the Japanese Tsunami and flooding in Thailand, has served to highlight the fragility of global supply chains, helping to ensure that new products manufactured in the UK are more likely to be supplied with domestically-produced plastic components.

As a consequence, there has been an increased tendency to 're-shoring', as existing components can be manufactured more competitively here in the UK.

Another major influence in the plastics sector is the cost of crude oil, as in the long-term there has been a strong correlation between oil and polymer prices. Oil prices have been robust, averaging almost $112 per barrel (2011 $111 per barrel) and only averaging below $100 per barrel in June 2011 when the Eurozone crisis was most severe.

High oil prices are a key influence on polymer feedstocks which predominantly are derived from oil, and hence, in turn, an influence on polymer producers.

2012 Brent Crude Oil Price per tonne



However, at what point polymer producers acquire and indeed realise the cost of their raw materials is matter of great significance, and commonly of great influence when it comes to matters of profitability.

This sensitivity can be further influenced depending upon whether the feedstocks are acquired on a spot or contract basis (in which case 'take or pay' contracts can further affect economics).

Many polymer producers suffered reduced profitability in 2012, and those buying monomers faced the greatest difficulty as margins were often negative.

Oil price also has a significant baring on both transportation costs and energy prices.

These also are of significance in the polymer supply chain, where transport is a significant factor in moving raw materials and finished goods around the world, and energy is a significant component of polymer production and subsequent conversion.

So in terms of manufacturing cost, the high cost of crude oil would suggest that from the supply side prices of both plastic raw materials and plastics converted into finished or semi-finished components should be high.

However, the other side of the equation is the economy, which on a global basis was very weak. The net outcome of high input prices and poor demand is invariably weak margins, and this was particularly evident in the case of lower margin more price sensitive plastics applications.

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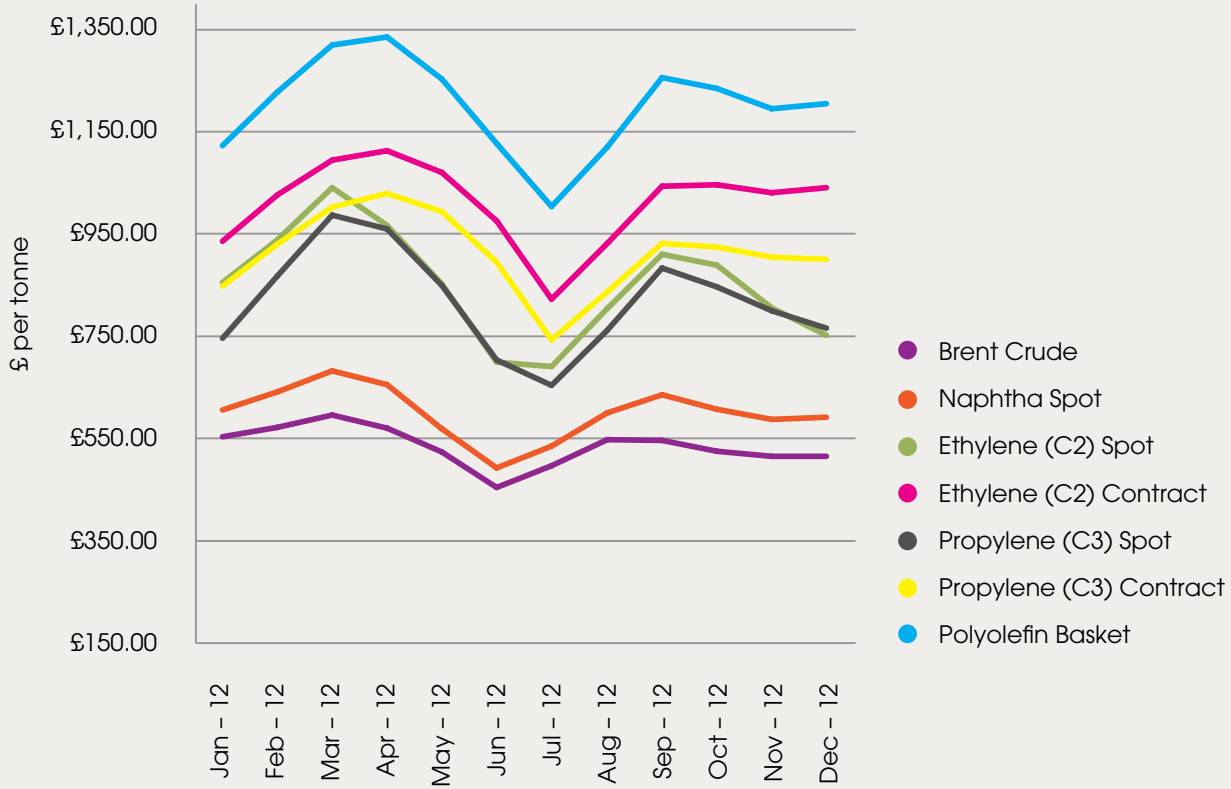
Data provided by PIE
www.pieweb.com



2012 Review
Polyolefins

Almost two price cycles were completed in just 12 months, although the second peak is smaller and less severe. The change in oil price that took place at the beginning of June and suddenly stimulated buying interest is very clearly evident, as is the variability between the finished polymer, monomers, the common intermediate Naphtha, and of course crude oil.

Price volatility was strongly influenced by the tactics of both buyers and sellers. Buyers typically tried to capitalise when they believed that prices had bottomed by increasing order volumes in order to build inventory.

Sellers limited sales volumes and often closed order books early to curtail such pre-buying. In the end, sellers were more successful than buyers, but the overall situation became antagonistic with the net outcome of creating the high levels of volatility that neither party wanted.

It was also notable that due to producers reducing output rates from around September, there was not the typical spree of seasonal offers, as producers needed to shift inventory down the supply chain in order to create warehouse capacity for volumes produced in December when off-takes are low from converters due to the Christmas shutdown in Western Europe.

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Styrenics

Data provided by PIE
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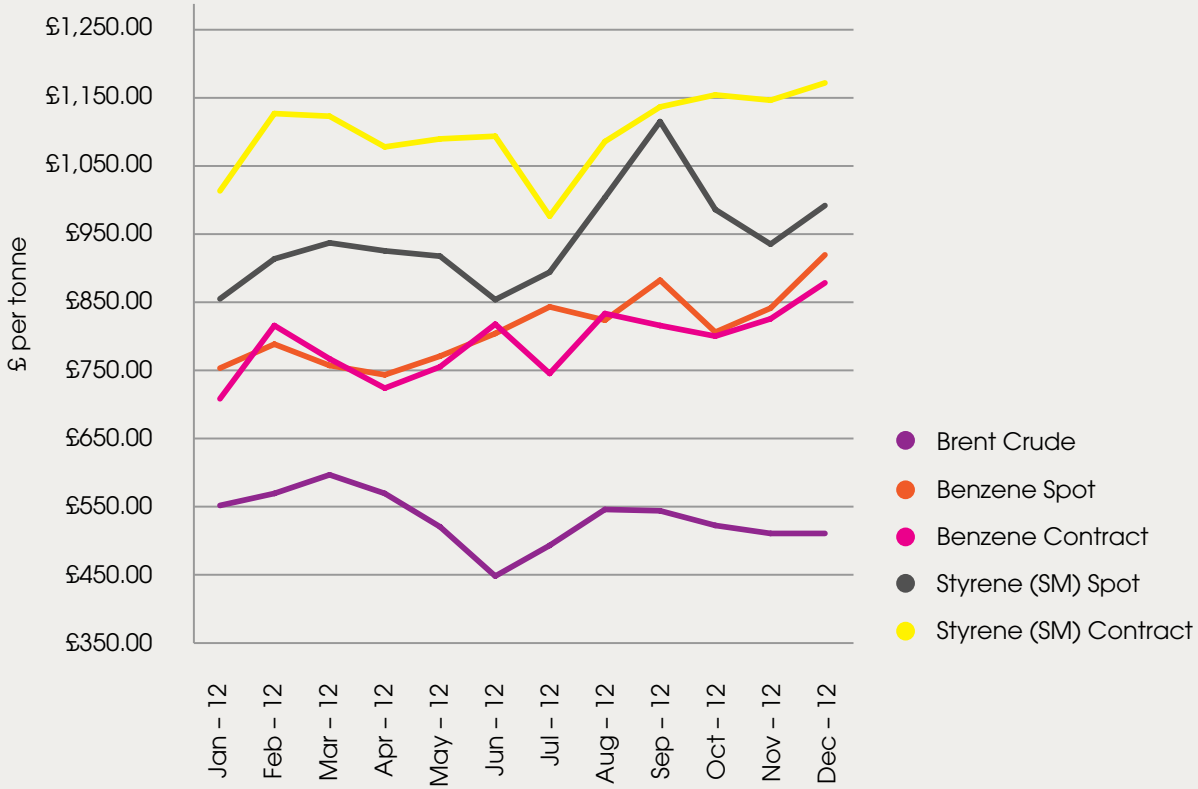

2012 Review
Styrenics

In the case of Styrenics, butadiene was again a key theme. In 2012 there was a significant reversal in the price trend for this important monomer as demand from the automotive sector for tyre production slumped and supply improved for the production of styrenic polymers including HIPS and ABS.

However, as can be seen from the graph, Benzene prices, which are really influential in the pricing of styrenics including PS and ABS, commenced a strong upward trend in the final quarter pushing prices up.

In the case of polystyrene, the market perceives prices as high relative to competing polymers such as PP and PET and this will continue to be an influence on demand going forward.

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Engineering Polymers

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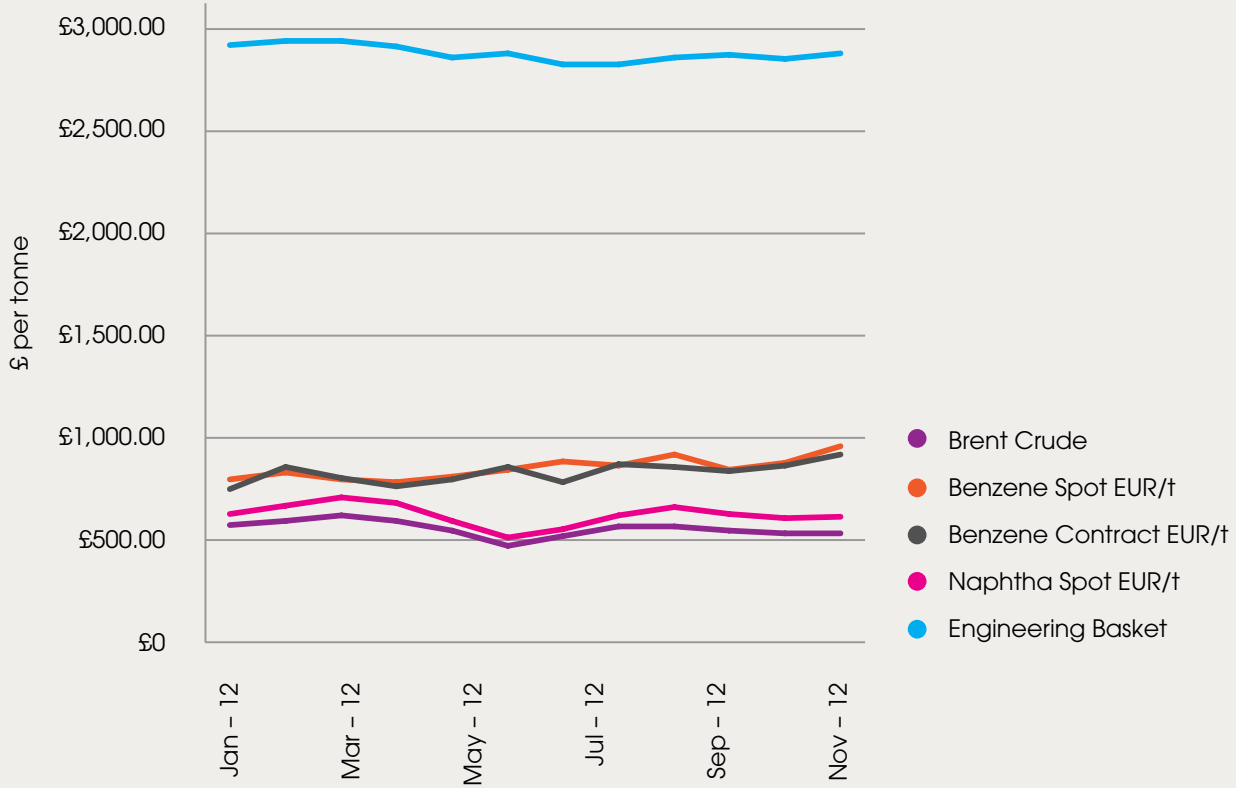

2012 Review
Engineering Plastics

As the graph clearly demonstrates, the margin over feedstock and oil price for engineering polymers is much greater than for standard thermoplastics, as such prices tend to be less dynamic and are more heavily influenced by the global economic situation.

Whilst from a European perspective the expectation would be for prices to fall on the back of a poor economic situation, on a global basis there was GDP growth and the price stability of the engineering polymers portfolio reflects this.

As with styrenics, the recent increase in benzene costs is a concern for producers of Nylon 66 and particularly PC producers who typically have much finer margins.

2013 Outlook

The key drivers of polymer pricing are likely to remain exchange rate, crude oil and feedstock prices, and the global economic situation.

Needless to say, all of these factors are fragile and often subject to change at short notice.On this basis, no reliance should be placed upon the information provided.

The situation on exchange rates looks basically quite stable:

	Q1 2013	Q2 2013	Q3 2014	Q4 2014
GBP vs. Euro	€1.22	€1.22	€1.22	€1.22
GBP vs. USD	$1.60	$1.60	$1.58	$1.60
Euro vs. USD	$1.32	$1.32	$1.32	$1.32

In particular, a slight strengthening of the GBP against the Euro will bring some relief on polymer prices, which are mainly Euro derived. Stability of the Euro vs. USD will ensure that exchange rate is not a factor influencing the European cost of crude oil.

Oil price is possibly much harder to predict, although it is unlikely that the shale gas revolution in the US is going to have any major influence on oil prices in 2013, especially considering the economics of oil derived from more recent sources such as tar sands, and deep water drilling are significantly higher than more conventional sources.

The probability of Brent Crude remaining above 100 USD per barrel is pretty high, and we are again likely to see an average around $110.

The general economic situation is more difficult to predict, and the words 'triple dip recession' are already being voiced in some quarters.

There is little doubt that there is another tough year in prospect. Across the whole UK economy even a 1% growth in GDP looks like a tough ask. However, the renaissance in the manufacturing sector, as a result of exchange rate and government policy, looks set to continue and this will certainly influence the plastics processing sector.

Overall, in terms of the major influences on polymer prices, it looks very much a case of more of the same. Whilst this will have a similar bearing on polymer prices, further detail is provided below on what may be in store both for the main polymer groups Plastribution sells and for some individual polymer types.

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2013 Outlook

Further updates throughout 2013
If you would like to receive the monthly edition of price know-how delivered direct to your mailbox, please either contact your representative, or apply to be put on the mailing list at:

www.plastribution.co.uk/price-know-how

We look forward to keeping you informed about developments affecting prices in the polymer market.

Polyolefins

In addition to high oil prices, a further important influence will be the cost of Naphtha. In 2012 demand for Naphtha was suppressed due to a large number of Naphtha crackers undergoing routine maintenance in Asia.

In 2013 demand is likely to be increased as more capacity will be on stream. The increase in demand is likely to push up Naphtha prices, which in turn is likely to drive up ethylene and propylene costs, and in turn upward pressure placed on polyethylene and polypropylene.

This influence may be more effective since it affects both un-integrated polymer producers who use C2 and C3 as their raw material and also those integrated back into Naphtha.

Styrenics

Whilst styrene monomer is produced 'on purpose' from benzene and ethylene, styrene monomer is alsoa by-product from the manufacture of propylene oxide used in the manufacture of polyurethanes.

So whilst upward pressure on ethylene costs and volatility in benzene costs are highly influential, then so too will be demand for polyurethane, which serves key markets such as furniture, and automotive.

Increased Naphtha cracking should result in increased butadiene production and subsequently influence the premium of HIPS over GPPS and also ABS prices.

Engineering Plastics

As described above, the pricing of these materials is heavily influenced by the general economy.

Of particular note will be PC pricing, where due to the continuing drop in demand for optical media (CDs & DVDs), capacity is exceeding supply, but this needs to be balanced against the higher benzene costs and the desire of the major producers to restore margins.

Also, the situation on POM looks quite stable with new capacities added in 2012. With regard to both PA6 and PA66, the automotive sector is a massive influence and here again prices may come under pressure as car sales come under increasing pressure.

Methodology

This report is produced based upon the following fundamentals: -

- EURO based pricing for feedstock and polymer pricing
- Conversion of Euro and USD based prices at prevailing exchange rates
- Product baskets weighted according to UK consumption

Acknowledgements
We would like to thank the following organisations for their support in producing this report: -

PIE (Plastics Information Europe) www.pieweb.com

HM Treasury www.hm-treasury.gov.uk

Disclaimers
The information provided in this report are based upon data available from both external an internal sources, and whilst care is exercised in producing this report we give no guarantee of accuracy.

Furthermore we accept no liability for purchasing decisions based upon the information provided as the petrochemical market is complex and volatile.

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