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POLYMER PRICES

PVC: Tectonic shifts in the European market balance / New developments in additives and global changes alter traditional framework / PIE to reorganise its reports in January 2013

A number of developments are currently prompting massive changes across the entire European PVC price reporting scene. Traditional schemes and ranges, established and validated throughout the course of the past 30 years, are undergoing abrupt changes. To be more exact, most internationally active price providers have started correcting their existing ranges downward, by between EUR 200-350/t. In addition, European PVC market leader **Ineos** in October 2012 started reporting so-called "gross" S-PVC prices, which have replaced its monthly price announcements. These changes in the PVC market are doomed to affect all companies along the polymer's value chain – and, as a result, existing trade practices, including established contract clauses, will have to be rethought and redefined.

PIE will respond to these changes in its January 2013 price report. As several interviews and analyses involving key market players and conducted over the course of the past few weeks and months have shown, any superficial alteration will not suffice, never mind how drastic the change. On the contrary, all reporting on the PVC market has to adapt to completely new ranges capable of reflecting the new market reality.

Global changes rock the existing foundation

As a rule, an "inflationary" tendency is considered in any range, to justify the need for possible adjustments. Such a measure can be compared to a currency devaluation. Clearly, these kinds of inflationary trends cannot be entirely dismissed when it comes to price reporting. However, pointing to such tendencies cannot explain corrections that add up to 20-30% – an increase of such proportions cannot be discerned in any other group of polymers. Needless to say, it is highly unlikely that such a trend would have constituted a workable basis for the price reporting of the past 30 years. But one need not search long to find factors that can explain the change. For one, the international PVC production scene has changed dramatically over the years, creating new pressures in the global balance. In effect, the continental plates of the market are shifting, and the result is a series of strong earthquakes shaking its very fundamentals.

An important factor in this change has been the emergence of China – a leading global PVC consumer – as a nominal self-sufficient PVC producer. This development has prompted a series of changes in the Asian production landscape. Japan's PVC scene, for instance, is in the midst of a serious restructuring. Elsewhere on the continent, too, no stone is being left unturned – and quite literally so. While Malaysia has ceased all PVC manufacture, Taiwan's industry continues to question its own validity, while South Korea already has accepted China as the region's main production hub. Given the existing volumes available, the abundance of PVC in Asia can only be described as "painful".

Significant PVC overcapacities exist in North America, too – and have only gained in volume since the crisis of 2008/2009. Contrary to the widely expected consolidation, the shale gas boom has made North American PVC production the world's cheapest. Faced with a declining domestic market, local producers have focused all their activities on export and are even planning additional capacity expansions. As a result of their aggressive price policies, the lower price range of PVC base powder traded in bulk volumes (minimum orders of 300 t FOB) on the global market and used in applications such as sewage pipes, has started to wobble. Over the last two years, this trend has increasingly made itself felt in Europe as well.

Additives wreak havoc with producers' cost calculations

While international trade prices for the most basic PVC grades continue to erode, notations for most PVC additives, such as metal-based stabilisers, impact-modifiers (mostly C4 based) and pigments such as titanium dioxide, on the other hand, have spiraled. None of the other thermoplastics are as dependent on these kinds of additives, which PVC requires because of the difficulty of processing it in its natural state. In fact many processors and compounders continue to guard their mixing process with the utmost secrecy.

Given this reality, compounders and processors of higher-grade PVC – usually sold in small or medium-sized batches – have not been able to benefit from the decrease in basic PVC traded in bulk volumes on the global market. On the contrary, the trend often pointed in exactly the opposite direction,

as despite declining basic PVC costs, these players found themselves paying top dollar for their PVC-additive mix. Not surprisingly, the price discussions held during the past few years have tended to be rather heated.
These diverging trends have also caused the prices processors have reported to PIE to drift further and further apart. While those ordering larger volumes have often benefited from rebates, the upper end of the PIE range – which includes smaller batches as well as ready-to-use blends for higher-quality applications – ended up paying much more. As a result it has become increasingly difficult to report any range at all – and what bandwidth is left no longer suffices to provide a picture of the market. Far from a fleeting trend, it increasingly looks as though this situation is here to stay. Even though the additive front is showing signs of relaxation, once demand picks up, notations are sure to climb to their earlier heights yet again. The reason being the structural undersupply in the global markets for metals, C4 products and titanium dioxide – while international PVC markets point in exactly the opposite direction.

PIE believes that the answer to these challenges lies in a restructuring of our existing price reporting. The ongoing rift between the requirements of different market players along the entire PVC value chain has to be weighted accordingly, which means the reporting has to become more flexible where divergences are concerned. At the same time, it is necessary that contract partners be offered a switch to the new reality that is reliable and involves as little friction as possible. To do so, PIE will introduce four new market categories in January 2013 that will reflect PVC's different application fields.

S-PVC (base)
This classification refers to pre-stabilised powder sourced from European suspension polymerisation lines. In most cases, deliveries will consist of medium to small orders of 20 t units (or silos of up to 23 t). PIE's reference for October 2012 will be a range of EUR 900-1,000/t.

The K-values provide a rough division already (lower K-values of 60 at the lower end, while those around 70 are found at the upper end). But given the fact that there are plenty of special conditions – including, for example, consistency – this value can only serve as an indication. The lower end of this particular range reflects mostly simple applications such as sewage pipes (K value of 65) – including blends with a high chalk content. By contrast, the upper end reflects the prices of profile goods (K value of 70) and base materials for flexible PVC applications, including chalk-filled blends for standard household cables. The price paid by larger customers, who can use base powder imports as a reference, still tends to fall below this particular range.

U-PVC Dry Blends / Compounds
This category refers to ready-to-use resin blends and resins for rigid PVC ("unplasticised" or U-PVC), which are either mixed by the processors themselves or offered by compounders. The key additives that come into play here are titanium dioxide, impact modifiers and stabilisers. Trade is mostly in smaller and medium-sized orders (20 t units). PIE's reference range for October 2012 has been fixed at EUR 1,150-1,350/t.

For the first time ever, this category will also reflect additive prices – as much as possible, that is. This particular classification will encompass construction profiles – in particular for windows – higher-grade pipes ("round profiles") and rigid films. In addition, this price class is suitable for processors that blend themselves, including window profile manufacturers and their clientele. In order to take account of the specific blend proportions, the exact reference point (higher – lower) should be agreed upon once the new structure is launched.

PVC-P Compounds
Plasticised PVC (PVC-P) compounds are only available in resin-form. In this state, S-PVC is blended with plasticisers, impact-modifiers and stabilisers. Most orders are small- and medium-sized of up to 20 t. PIE's base reference for October 2012 has been fixed at EUR 1,250-1,450/t.

This category is intended for applications such as hoses, elastic injection moulded products, roofing membranes, window insulation as well as higher-quality cables and floor covering. Here, too, the respective reference point has to be determined individually once the new reports are launched.

PVC Pastes
A completely new field for PIE, this particular category deals with fine-grained PVC powder used in emulsion (E-PVC) or micro-suspension – two processing techniques we have been researching as part of our price panel for some time now. Depending on the application, the material is usually traded in small and medium-sized volumes, which in most cases amount to 20 t. The base reference point for October 2012 has been fixed at EUR 1,350-1,600/t.

This range reflects all paste and liquid applications, including floor covering (lower parts), wallpaper, canvases, undersurfaces (middle layer) as well as synthetic leather and slush (top layer). The lower parts of this range could at times compete with PVC-P compounds (floor covering). It should be noted that this bandwidth can also be exceeded, depending on how specialized or high-quality the application is (including, for example, automotive interior).

When will the new PVC price reports go into effect?
The new categories introduced above are supposed to better reflect key PVC application fields and their specific conditions. However, in order to reap the benefits of this reorganisation, all players along the entire value chain have to agree to abide by these new classifications. Surely, such a repositioning will require some time. To make the change as easy as possible, PIE will continue to post its "old" ranges (S-PVC pipe, S-PVC film/cable) for the first six months of 2013 on a pro-forma basis. Their room for manoeuvre will largely reflect the new "S-PVC base" type and not those grades containing additives.

If you have any more queries about the reorganisation of our PVC price reports, the PIE team will be happy to help out. Just contact: pvc-reorganisation@pieweb.com

PIE price report categories for PVC effective January 2013

Type	Description	Typical Applications	Reference Oct 2012 (20t FD, EUR/t)
S-PVC base	Powder (suspension)	Base material used for blending: Sewage pipes at lower end, profiles and plasticised grades at higher end / Top end reflects chalk-filled blends (pipes, profiles, construction cables)	900 - 1,000
PVC-U dry blends / compounds	Grain / resin (stabilised, plasticisers, pigments, modifiers)	Window and other construction profiles, round profiles (high-quality pipes), impact-resistant and rigid films	1,150 - 1,350
PVC-P compounds	Resin (stabilised, plasticisers, pigments, modifiers)	High-quality cable, roofing membranes, hoses, injection moulded applications, window insulation, floor covering	1,250 - 1,450
PVC pastes	Fine powder (emulsion or micro-suspension)	Floor covering (lower end), wallpaper, canvases, underfaces, synthetic leather, slush (higher end)	1,350 - 1,600