1 The primary plastics market

The byse Division for Plastics Recycling invites visitors to take part in the International Conference on Plastics Recycling in Bad Neuenahr from 30th to 31st May 2017, which will be held for the 20th time this year. Current issues of plastics recycling will, once again, be on the agenda for presentation and discussion during the two-day European industry symposium, cf.: http://www.byse.de/sachverstand-byse/tagungen/internationaler-altkunststofftag-2017/anmeldung-und-preise-altkunststoff17.html.

IK Industrievereinigung Kunststoffverpackungen e.V. reports that the plastics packaging industry experienced a dynamic start to the new year. After a successful year 2016, plastics packaging producers are expecting the economic situation to develop favourably at the beginning of this year, too, cf. http://www.kunststoffverpackungen.de.

All companies surveyed within the IK Economic Trend assess the overall economic situation as good (70 %) or satisfactory (30 %). Estimates of the companies' turnover or export development within the first three months of 2017 are commensurately optimistic. More than half of the respondents are expecting raw material costs to rise. From the companies' point of view, this will lead to corresponding price adjustments in packagings, too.

However, from the point of view of IK Industrievereiningung Kunststoffverpackungen e.V., these efforts will not be able to offset the energy costs, which are going to rise further in 2017. This applies to the EEG levy in particular, which will reach a new record value of 6.88 cent/kWh this year. In this context, the association criticises the federal government for its insufficient measures. "The subsidy model of the planned economy for renewable energy sources must finally be replaced by orientation towards the market economy," IK executive director Ulf Kelterborn demands, "The Renewable Energy Act (German: EEG) would thus become superfluous."

Standard plastics: In March 2017, too, standard plastics prices were at their highest level in 18 months. Average prices of all standard plastics were taking off again. Standard plastics were listed at 1444 €/t, i.e. an average 60 €/t higher than in the previous month, see Table 1. And thus, average listings in March 2107 (1444 €/t) were 206 €/t higher than those in March 2016 (1238 €/t). Price rises even exceeded the increases from precursors. Overall, there are reports on considerable demand for plastics. Even though plastics processors are showing restraint in purchasing products, they are being driven by the markets. There are shortages in standard plastics manufacture, which apply to LDPE and PP in particular. Standard plastics might, once again, become more expensive in the next few months. The price development to date is reminiscent of the record peaks in 2015. Packaging PET is listed at an average 1280 €/t and thus, 30 €/t higher than in the previous month.

Table 1:	EUWID listings for standard	plastics over the	nast months:	prices in €/t
Table 1.		plastics over the	past months,	prices in Cit.

Prices in €/t	March 2017	Feb. 2017	Jan. 2017	Dec. 2016	Nov. 2016	
LDPE film grade	1440- 1550	1390- 1500	1350- 1440	1310- 1410	1340- 1440	
LLDPE film grade	1420- 1520	1360- 1460	1320- 1400	1280- 1370	1310- 1400	
HDPE injection moulding	1400- 1450	1360- 1400	1320- 1360	1280- 1320	1330- 1370	
HDPE blow	1420- 1470	1380- 1420	1340- 1380	1300- 1340	1330- 1370	
moulding	1420-1470	1300- 1420	1340- 1300	1300- 1340	1000-1070	
PS crystal clear	1860- 1950	1780- 1860	1570- 1620	1480- 1530	1330- 1380	
PS high impact	1960- 2050	1870- 1960	1660- 1720	1570- 1630	1420- 1480	
PP homopolymer	1350- 1410	1290- 1350	1230- 1290	1190- 1260	1220- 1290	
PP copolymer	1410- 1470	1340- 1400	1280- 1340	1240- 1310	1270- 1340	
PVC tube grade	890- 940	840- 890	820- 870	810- 850	830- 870	
PVC film/cable	940- 980	890- 930	870- 910	850- 890	870- 910	
Average Price	1444 ± 334	1384 ± 322	1305 ± 260	1261 ± 239	1249 ± 217	

2 The plasticker price index

The plasticker internet platform, cf. http://plasticker.de, publishes quotes on an hourly basis. The present market report indicates the final monthly prices. It is only possible to represent the preliminary prices for April 2017. These listings thus merely reflect an interim situation that will not become definitive until the beginning of May 2017.

2.1 Standard plastics: In March 2017 the average price in plasticker was 13 €/t higher than in the previous month, cf. Table 2. This is a considerable price increase. The listings for March 2017 (549 €/t) were 12 €/t lower than those in March 2017 (561 €/t). March 2017 continued to show restrained purchasing demand. Distinct price changes, i.e. changes of more than +/- 40 €/t, were reported in March 2017 for PS granulates + 60 €/t and PVC_P regrind + 50 €/t. LDPE regrind has a tendency to markedly lower prices than in the previous month. However, the LDPE listings are indicated subject to a low supply figure.

The preview of the April listings, which cannot be definitively reported until May 2017, shows the average price to be more or less unchanged. At the beginning of April, i.e. on 10th April 2017, demand on the plastics markets was markedly higher than in the previous month.

	April 2017 ⁶	March 2017	February 17	Jan. 17	Dec. 16	Nov. 16	March 16
HDPE regrind ¹	600	620	610	620	590	570	590
HDPE	950	930	950	920	820	840	870
regranulates5							
LDPE bale goods ²	280	270	250	200*	220	240	230
LDPE regrind ¹	490*	460*	510	550	570	620	570*
LDPE	870	740	730	720	780	800	800
regranulates ⁵							
PP bale goods ³	250	320	330	290*	290	260	210
PP regrind ¹	520	550	530	530	500	520	550
PP regranulates ⁵	780	770	740	730	760	750	880
PS regrind ⁴	640	620	600	630	650	650	630
PS regranulates ⁵	880	940	880	880	880	880	980
P_PVC regrind ¹	430	450	400	440	360	380	420
PVC_U regrind ¹	450	460	450	440	410	430	440
PET bale goods	210	200*	160	130*	180	190	260
PET regrind, coloured	370	350	360	300	310	310	420
Average Price	(551)	549	536	527	523	531	561

Table 2: Listings for standard in plasticker; prices in €/t.

2.2 Technical plastics: Technical plastics are booming. In March 2017 the average technical plastics price was quoted 65 €/t higher than in the previous month, see Table 3. This is a considerable price rise. A comparison of the average prices for March 2017 (1250 €/t) with those for March 2016 (1178 €/t) shows the current price to be 72 €/t higher. Marked price changes, i.e. changes by more than 70 €/t, were reported in March 2017 for ABS regranulates by + 200 €/t and for POM regranulates by even + 450 €/t.

A first preview of the April listings, which cannot be definitively reported until the beginning of May 2017, shows the average price to be 32 €/t higher than in the previous month. Up until 12th April 2017 the plasticker internet platform shows demand for technical plastics to be higher than in the previous months. The regranulates made of ABS, PA 6 and POM were quoted markedly higher in April than in March.

^{*:} Supply figure too low to attain statistical significance; 1: equivalent to the grade 'post-industrial, mixed colours'; 2: equivalent to K49; 3: equivalent to K59; 4: equivalent to 'standard, mixed colours'; 5: equivalent to the grade 'regranulates, black'; 6: preview that may be amended by additional quotes

	April 2017 ⁶	March 2017	Feb. 17	Jan. 17	Dec. 16	Nov. 16	Märch 16
ABS regrind	700	640	650	640	640	650	740
ABS	1410	1540	1340	1290	1260	1320	1290
regranulates5							
PC regrind	950	890	830	860	900	830	920
PC regranulates ⁵	2020	1960	2020	1990	1980	1790	1720
PBT regrind	480	480	530	480	460	430	450
PBT regranulates	1620	1600	1540	1620	1510	1470	1640
PA 6 regrind	820	880	850	870	870	870	910
PA 6	1770	1660	1600	1680	1610	1600	1720
regranulates5							
PA 6.6 regrind	900	940	940	880	910	860	970
PA 6.6	1770	1670	1690	1730	1730	1720	1790
regranulates ⁵							
POM regrind	640	680	620	620	610	560	570
POM	2300	2060	1610	1540	1530	1650	1420
regranulates5							
Average Price	(1282)	1250	1185	1183	1168	1146	1178

Table 3: Listings for technical plastics in plasticker; prices in €/t.

3 The secondary plastics markets

The virgin material prices, which are continuously rising, are having an impact on recyclate prices in particular. While recyclate prices are rising, waste plastics prices are falling more and more. To date, the falling prices for used plastics have not been represented by the price indices. In negotiations the prices listed for used plastics by EUWID are subject to individual quality.

In March 2017, EUWID reported that demand for used plastics was restrained. Recyclate prices, i.e. regrind, remained unchanged. The prices of post-user PE, i.e. film in particular, have fallen by an average 32 €/t. The plasticker price index for March 2017 shows price rises of an average 13 €/t, with demand for plastics being restrained. These price increases are mainly due to recyclates – but not due to used plastics. An increase in demand is discernible for April.

3.1 Waste plastics:

Overall, there is considerable supply of used plastics on the national markets. There is excess supply of used plastics. And this is pushing prices down. Excess waste quantities in Germany are also being generated by the high incineration prices. This is how an increasing amount of plastics from various trade, industry and household waste streams are being weeded out and offered on the markets. In addition, large quantities of plastics waste have been stockpiled for some time in order to avoid selling these at less than cost price. This plastics waste is now penetrating the markets, too.

Quantity versus quality: In Germany the plastics waste offered is still poor quality. The quality grades offered could still be considerably improved, which would also have a positive impact on the quantity issue. This is because quantity is also being generated by the fact that there are still far too many non-plastic components in bale goods.

In addition, the excess supply of used plastics is also a result of the stagnating outflow to the Far East. It is really hard to obtain sea containers to the Far East. The price of sea containers has been drastically increased. On the one hand, freight charges have thus been raised considerably; on the other hand, demand for waste plastics from the People's Republic of

⁵: equivalent to the quality grade 'regranulates, black; ⁶: preview that may be amended by additional quotes.

China is very limited. The re-launch of the Green Fence Campaign, i.e. what is known as "China Sword 2017", is taking effect.

Furthermore, an increasing amount of used plastics from the European Union are being offered in Germany. This is due to the sales opportunities for high-quality materials and to the fact that the deadlines for payment are being adhered to. Even though plastics collection is being further expanded in each of the European member states, the plastics are then often not further recycled and processed.

3.2 Recyclates:

In April, too, demand for primary goods for standard plastics has been high. Plastics prices are still at record highs. And this is having a positive impact on the secondary markets in particular. There is considerable demand for recyclates. Recyclate prices are following those of primary goods. Above and beyond this, there is the threat of additional shortages of primary goods. The imminent shortages can be offset by increased use of recyclates. Plastics processors are trying to achieve independence from market fluctuations by purchasing recyclates.

Plastics manufacturers and plastics processors have come to view plastics recycling as an additional source of supply. This is because recyclates ensure supply security, irrespective of the distortions in each of the primary markets. However, the plastics processors' quality requirements or the recyclates that supplement virgin materials are hard to be met in some areas. Plastics recyclers, for their part, are complaining about the insufficient quality grades from the upstream chain, including quality grades from collection and sorting.

The recyclate prices listed by EUWID, in this case regrind, have not changed. Regrind and regranulates are listed at higher prices by plasticker. There is considerable demand for recyclates from LDPE, HDPE, PP and PS in particular. PET virgin materials, too, are faced with additional shortages time and again. PET recyclates are selling very well. The increased virgin material prices are having a positive impact on prices for regrind and regranulates. Some time ago, higher prices for used PET bottles were implemented on the markets, which has now resulted in relatively restrained price adjustments. There is still considerable demand for PET bottles.

4 Explanations on price listings

For a detailed analysis including information on price indices for virgin materials, used plastics and precursors, please go to EUWID Recycling und Entsorgung (Recycling and Waste Management), cf. www.euwid.de, or EUWID Plastics, www.euwid-kunststoff.de.

No guarantee for any of the prices. All EUWID prices are quoted ex works. As a rule, the prices quoted refer to quantities in excess of 20 tons. The monthly quotes for **secondary plastics**, which are updated on an hourly basis, can be calculated using the price lists that are derived from the quotations published in the raw material exchange **plasticker** (www.plasticker.de). The prices listed in this index are quoted with reservation - as the majority of the quotes submitted are not necessarily equivalent to the sales prices. Furthermore, plasticker does not distinguish between the following grades: transparent, mixed colours or colour-separated. Therefore, the information provided by plasticker may indicate different market behaviour than the prices quoted by EUWID.

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Dr Thomas Probst, byse