bvse market report on plastics, November 2016

1 The primary plastics market

The mood in the German economy has continued to improve, s. www.cesifo-group.de. The ifo Business Climate Index rose from 109.5 points in September to 110.5 points in October. Business entrepreneurs were more satisfied with their current business situation. In addition, they are taking a markedly more optimistic view of the next few months. The upswing in Germany is gaining momentum. The index rose in the processing industry. Once again, this was due to the markedly more positive prospects for the next few months. Expectations reached their highest value in more than two years. Even the assessments of the current business situation improved. Investment goods in particular are in great demand. Capacity utilisation in the industrial sector rose by 0.9 percentage points compared to the previous quarter, reaching 85.7 per cent.

The Düsseldorf K fair is considered to have been very successful. The industry's largest fair globally was marked by the extremely favourable economic situation of the international plastic and rubber industry and its positive prospects for the future, which put the 3,285 exhibitors at the 2016 K fair in Düsseldorf in an excellent mood. 232,000 expert visitors from more than 160 countries were given a warm welcome in the exhibition halls during the eight days of the K 2016. The expert visitors were enthusiastic about the myriad of technological innovations being presented to them by raw material producers, mechanical engineering companies and manufacturers of semi-finished products and technical parts.

1.1 Standard plastics: October was marked by moderate demand for standard plastics – as is true for the preceding month. Thus the average standard plastics price more or less held its own compared to the previous month, cf. Table 1. A comparison of the average listings for October 2016 (1259 €/t) with those for October 2015 (1274 €/t) shows the price fall to be 15 €/t. Price changes are discernible in PP (by +20 €/t) and in PS (by -40 €/t). Packaging PET was quoted at an average price of 1045 €/t.

Plastics prices continued to be low in October. However, experts are expecting prices to have bottomed out and to rise again on a large scale in November. Experts are speculating on prices rising due to the low stocks. In October crude oil listings went up, reaching their peak at 52.60 US $ / barrel, which led to precursor prices increasing, too. Up until mid-November crude oil prices fell again, reaching only 44.90 US $ / barrel on 15 November 2016.

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

Table 1: EUWID listings for standard plastics over the past five months; prices in €/t.

Prices in €/t	Oct. 2016	Sept. 2016	Aug. 2016	July 2016	June 2016
LDPE film grade	1340- 1440	1340- 1440	1340- 1440	1360- 1480	1420- 1510
LLDPE film grade	1310- 1410	1310- 1410	1310- 1410	1330- 1450	1390- 1480
HDPE injection moulding	1360- 1400	1360- 1400	1360- 1400	1380- 1430	1410- 1470
HDPE blow moulding	1360- 1400	1360- 1400	1360- 1400	1380- 1430	1400- 1460
PS crystal clear	1310- 1380	1340- 1430	1340- 1430	1340- 1430	1440- 1550
PS high impact	1400- 1480	1430- 1530	1430- 1530	1430- 1530	1550- 1650
PP homopolymer	1220- 1290	1200- 1270	1180- 1250	1180- 1250	1180- 1250
PP copolymer	1270- 1340	1250- 1320	1230- 1300	1230- 1300	1230- 1300
PVC tube grade	830- 860	830- 860	840- 870	850- 880	850- 880
PVC Folien/Kabel	870- 900	870- 900	880- 910	890- 920	890- 920
Average Price	**1259 ± 211**	**1263 ± 217**	**1261 ± 213**	**1274 ± 217**	**1312 ± 246**

bvse market report on plastics, November 2016

1.2 Technical plastics: From June to October the average technical plastics prices fell continually, albeit in small increments, cf. Table 2. Compared to August technical plastics fell by an average 49 €/t. A comparison of the average listings for October 2016 (2329 €/t) with those for October 2015 (2510 €/t) shows the price fall to be 181 €/t. Demand for standard plastics was relatively moderate in October. The supply situation of technical plastics is assessed as favourable – there are no shortages.

Table 2: EUWID listings for technical plastics, which are published every two months, over the past six months; prices in €/t.

Prices in €/t	October 2016	August 2016	June 2016	April 2016
PMMA crystal clear	2500 – 2600	2500 – 2550	2500 – 2550	2500 – 2550
ABS natural	1550 – 1720	1620 – 1820	1720 – 1920	1700 – 1900
ABS w/b	1720 – 1870	1720 – 1870	1820 – 1970	1800 – 1950
ABS mixed colours	2250 – 2520	2320 – 2620	2420 – 2720	2400 – 2700
PC crystal clear	2650 – 2800	2650 – 2800	2650 – 2800	2650 – 2800
PC GF reinforced	2950 – 3050	2900 – 3050	2900 – 3050	2900 – 3050
POM natural	1890 – 1990	1890 – 1990	1890 – 1990	1890 – 1990
PA 6 natural/black	2020 – 2170	2020 – 2170	2020 – 2170	2020 – 2170
PA 6 GF reinforced	2320 – 2420	2320 – 2420	2320 – 2420	2320 – 2420
PA 66 natural	2450 – 2600	2400 – 2600	2400 – 2600	2400 – 2600
PA 66 GF reinforced	2500 – 2700	2500 – 2700	2500 – 2700	2500 – 2700
Average Price	**2329**	**2378**	**2400**	**2360**

2 The secondary plastics market

Quality, quality and quality are among the most important issues of plastics recycling. Where wastes are being collected, sorted, recycled and processed, it is of particular importance to deliver the quality grades agreed in order to be able to compete with the virgin material sector. Recyclates, which constitute the end of the plastics chain, are strictly monitored in respect of their respective quality and excellence. Only in this way is it possible for plastics recyclers to be successful in the plastic recyclates' various areas of use.

Thus quality assurance also corresponds to the plastics' various areas of use. This applies to recyclates, which are processed along with virgin materials, just as much as it does to plastics, which replace moulded parts made from concrete, wood and steel. And finally, this is also true for the plastic parts that are processed into substitute fuels and secondary fuels.

Or to put it another way: plastics recyclers depend on quality grades from the upstream chain – i.e. from collecting, sorting and processing – fully meeting each of the requirements agreed.

In its October Price Watch plasticker reported that standard plastic prices had fallen (by around 10 €/t) compared to the previous month. The purchase bids and offers in plasticker indicated restrained demand for standard plastics in October. The EUWID Price Watch for October showed that prices had remained almost unchanged. In October demand for secondary plastics was assessed as sufficient to satisfactory.

2.1 Plastics waste:

The markets for used plastics are stable and fluctuating only slightly. The listings for PE, PP and PVC are stable. The PS price has fallen by an average 11 €/t. The supply of used plastics is satisfactory in respect of quantity and quality. The plastics processors' incoming goods warehouses are replete with stocks. Exports to the Far East are slow or restrained. Only goods of sufficiently good quality are being shipped. A tight network of checks at different stages of loading, domestic transport, shipping and landing prevent used plastics from being exported along with foreign materials.

Waste PE sales are stagnating. However, the favourable purchase prices are leading to companies covering their needs for processing materials. While PP stagnated in the previous months, the PP markets have been increasingly resurgent. PVC has fully held its own. The supply of and demand for post-industrial PVC is stable.

PS markets are still volatile. Waste PS sales are stagnating. PS continues to be replaced by PET, which is leading to a fall in post-industrial waste sales. EPS recycling continues to be slowed down by the market distortions caused by the legislative authorities, which are preventing flame retardant insulation panels from being disposed of effectively. Hence, flame retardant EPS is collected as EPS packaging every now and then. EPS recyclers are thus subjecting their incoming input to very precise checks.

The PET markets turned around last year – from a sellers' market or supply market to a buyers' market or demand market. The recyclers' demand is determining the prices of used beverage bottles. The beverage bottles' quality grades are thus being assessed much more reasonably than was the case during the times of supply shortage. PET are still provided with a considerable supply of PET beverage bottles. Above and beyond this, the beverage bottle recyclers' warehouses are replete with processing goods.

The proportion of PET as a packaging material is rising in the areas of beverage bottles and the deep drawing film alike. Demand for PET packaging is high on both the bottle-filling companies' and the consumers' part. Beverages are preferably being filled into light, scratch-resistant and stable PET beverage bottles. PET is convenient and PET is trendy. The purchase prices of used PET beverage bottles fell once again in October. Transparent PET was listed 5 €/t lower and coloured PET reached values below zero. In this area, price rises, namely of 5 €/t, have once again been achieved.

2.2 Recyclate:

In October and November demand for recyclates has increased. The price pressure from virgin materials on recyclates is subsiding. Recyclates are also benefiting from waste plastics prices falling further. Plastics recyclers are enjoying the supply security provided by recyclates. Above and beyond this, recyclates are proving to have a stabilising effect on prices. PE recyclate sales are stable. PP recyclates are once again in demand after a period of standstill. PVC recyclate sales are dependent on the economic situation in the building sector. PVC markets are stable because a large proportion of post-industrial waste is being recycled and processed internally. The PVC markets have been stabilising. Falling precursor prices are having an impact on PS prices. Demand for PS recyclates is stagnating.

3 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 November 2016. These listings thus merely reflect an interim situation that does not become definitive until the beginning of December 2016. Plasticker offers the quality grades regrind and regranulates both as virgin materials and as secondary materials. The term 'bale goods' refers to waste plastics only.

3.1 Standard plastics: In October 2016 the average price in plasticker was listed 17 €/t lower than in the previous month, cf. Table 3. If the PET bale good price for the previous month is taken into account, the average price is thus 536 €/t. The average listings for standard plastics have reached their lowest level this year, reaching 527 €/t and 536 €/t respectively. The listings for October 2016, which were at 527 €/t, are 59 €/t lower than those for October 2015, which attained 586 €/t. Demand for standard plastics was slightly lower in

bvse market report on plastics, November 2016

October compared to the previous month. The following prices changed by more than +/- 40 €/t ± 40€ €/: PP regranulates -50 €/t and PS regranulates -80 €/t.

The first preview of the November listings, which cannot be definitively reported until the beginning of December, shows that prices are likely to stabilise at 543 €/t. In mid-November, i.e. on 11 November 2016, Markets resurged – both supply and demand are now rising.

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

	Nov. 16[6]	Oct. 16	Sept. 16	Aug. 16	July 16	June 16	Oct. 15
HDPE regrind[1]	580	590	600	600	610	610	650
HDPE regranulates[5]	860	860	840	850	910	920	900
LDPE bale goods[2]	250	210	200	190	180	240	260
LDPE regrind[1]	600	580	580	660*	670	730	640*
LDPE regranulates[5]	820	870	850	820	840	820	780
PP bale goods[3]	280	250	230	240	230	160	270
PP regrind[1]	550	540	520	540	570	570	610
PP regranulates[5]	790	750	800	800	840	830	950
PS regrind[4]	640	600	640	670	640	630	660
PS regranulates[5]	880	900	980	990	880	880	1020
PVC_P regrind[1]	380	360	360	390	420	410	440
PVC_U regrind[1]	440	410	420	460	430	410	450
PET bale goods	220	110*	230	240	180	140	220
PET regrind, coloured	310	350	370	440	400	340	360
Average Price	**(543)**	**527**	**544**	**564**	**557**	**549**	**586**

*: 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

3.2 Technical plastics: In October 2015 the average technical plastics price in plasticker was listed at 1103 €/t. This shows price stability compared to the previous month, cf. Table 4. A comparison of the average prices for October 2016 (1103 €/t) and those for October 2015 (1276 €/t) shows the current price to be 173 €/t lower. Technical plastics prices seem to have bottomed out. Only one of the prices listed at this point changed considerably (> 70 €/t), namely the listing for PBT regranulates, which fell by 100 €/t. In October the technical plastics markets can be described as positive.

The first preview of the November listings, which cannot be definitively reported until the beginning of December, shows the average price to be 54 €/t higher than in the previous month. Up until 11 November 2016 the plasticker internet platform continued to indicate satisfactory demand for technical plastics.

Table 4: Listings for technical plastics in plasticker; prices in €/t.

	Nov. 16[6]	Oct. 16	Sept. 16	Aug. 16	July 16	June 16	Oct. 15
ABS regrind	660	670	680	670	660	670	770
ABS regranulates[5]	1300	1160	1110	1320	1270	1290	1430
PC regrind	840	860	890	830	810	830	880
PC regranulates[5]	1790	1790	1770	1930	1800	1870	1840
PBT regrind	440	470	470	470	500	490	510
PBT regranulates	1470	1350	1450	1450	1600	1620	1710
PA 6 regrind	880	860	890	950	920	930	1030
PA 6 regranulates[5]	1610	1390	1410	1500	1590	1600	1880
PA 6.6 regrind	870	850	890	900	920	870	1100
PA 6.6 regranulates[5]	1700	1560	1550	1600	1730	1760	1930
POM regrind	570	580	570	600	590	590	590
POM regranulates[5]	1750	1690	1460	1580	1490	1430	1640
Average Price	**(1157)**	**1103**	**1095**	**1150**	**1156**	**1163**	**1276**

[5]: Equivalent to the quality grade 'Regranulates, black'; [6]: Preview that may be amended by additional quotes

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 without 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

Bonn, Monday 21 November 2016 Dr Thomas Probst, bvse