bvse market report on plastics, September 2016

1 The primary plastics market

Plastics are being re-invented: the 2016 K fair, which will take place in Düsseldorf from 19th to 26th October 2016, is expected to give a special boost to the global plastics industry. The figures, facts and data from 2013 highlight the importance of the K2016; for example, 218,000 visitors from 108 nations and 3,220 exhibitors from 59 countries illustrate the global importance of this plastics fair. Markets outside Europe in particular are expected to receive significant boosts from the 2016 K fair. Innovative technologies in plastics processing are lowering their costs and raising their effectiveness. The relevant professional journals have been publishing special issues on the 2016 K fair for some time.

1 Standard plastics: In August the average price of standard plastics fell once again – this time by 13 €/t compared to the previous month, cf. Table 1. A comparison of the average listings for August 2016 (1261 €/t) with those for August 2015 (1455 €/t) shows the price fall to be as much as 194 €/t. While PE has fallen by 28 €/t and PVC by 20 €/t, PP and PS have held their own. The price slump in plastics that occurred in August can be explained by the fall in precursor prices. Above and beyond this, the demand, which is generally low, is due to the holiday season. There is a considerable supply of standard plastics. Large quantities of polyolefins are being offered at very favourable prices on the global markets. Some experts are speculating on prices rising in September and October as a result of some isolated supply shortages and increases in demand. The trend towards slightly falling crude oil prices is likely to lead to plastics prices remaining unchanged.

Packaging PET is listed at an average price of 1080 €/t. Thus PET listings fell by 23 €/t compared to the previous month in July, too. 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. <u>www.kiweb.de</u>.

Prices in €/t	August 2016	July 2016	June 2016	May 2016	April 2016
LDPE film grade	1340- 1440	1360- 1480	1420- 1510	1420- 1530	1390- 1500
LLDPE film grade	1310- 1410	1330- 1450	1390- 1480	1410- 1500	1380- 1470
HDPE injection moulding	1360- 1400	1380- 1430	1410- 1470	1420- 1470	1410- 1470
HDPE blow moulding	1360- 1400	1380- 1430	1400- 1460	1400- 1460	1390- 1460
PS crystal clear	1340- 1430	1340- 1430	1440- 1550	1440- 1510	1450- 1520
PS high impact	1430- 1530	1430- 1530	1550- 1650	1530- 1610	1540- 1620
PP homopolymer	1180- 1250	1180- 1250	1180- 1250	1180- 1250	1180- 1270
PP copolymer	1230- 1300	1230- 1300	1230- 1300	1230- 1300	1230- 1320
PVC tube grade	840- 870	850-880	850- 880	840- 870	820- 850
PVC film/cables	880-910	890- 920	890- 920	880- 920	860-900
Average Prices	1261 ± 213	1274 ± 217	1312 ± 246	1304 ± 247	1238 ± 218

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

1.2 Technical plastics: From April to August technical plastics fell by an average 22 €/t. The price drop is due to ABS only, which fell by 100 €/t. The average technical plastics price was no more than 2378 €/t in August, see Table 2. A comparison of the average listings for August 2016 (2378 €/t) with those for August 2015 (2620 €/t) even shows that prices fell by 242 €/t. Nevertheless, the technical plastics price for 2016 has been relatively balanced until

byse market report on plastics, September 2016

now. The summer break has led to demand for technical plastics being lower; however, the demand for and prices of these plastics are likely to rise further in September and October.

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

Prices in €/t	August 2016	June 2016	April 2016	February 2016
PMMA crystal clear	2500 – 2550	2500 – 2550	2500 – 2550	2520 – 2570
ABS natural	1620 – 1820	1720 – 1920	1700 – 1900	1670 – 1900
ABS w/b	1720 – 1870	1820 – 1970	1800 – 1950	1770 – 1950
ABS mixed colours	2320 – 2620	2420 – 2720	2400 – 2700	2370 – 2700
PC crystal clear	2650 – 2800	2650 – 2800	2650 - 2800	2600 – 2750
PC GF reinforced	2900 - 3050	2900 - 3050	2900 - 3050	2850 - 3000
POM natural	1890 – 1990	1890 – 1990	1890 – 1990	1890 – 1990
PA 6 natural/black	2020 – 2170	2020 – 2170	2020 – 2170	2100 – 2250
PA 6 GF reinforced	2320 – 2420	2320 – 2420	2320 – 2420	2400 – 2500
PA 66 natural	2400 – 2600	2400 – 2600	2400 – 2600	2450 – 2600
PA 66 GF reinforced	2500 – 2700	2500 – 2700	2500 – 2700	2550 – 2700
Average Price	2378	2400	2360	2367

2 The secondary plastics market

In its August price index, plasticker reports that prices remained unchanged compared to the preceding month. The purchase bids and offers published in plasticker show that demand for standard plastics was restrained in August. The EUWID Price Watch for used plastics published in the same months indicates that the prices of PE quality grades were the only ones to fall. Standard plastics markets were described as calm in August.

The secondary plastics markets are marked by excess material supply. The market for used plastics, regranulates, semi-finished and finished products showed very weak demand during the summer months. All warehouses in the plastics chain, including waste plastics, recyclates and the finished products, are replete with stocks. Demand from the Far East is stagnating. In this area, too, used plastics are only being accepted so long as their price and quality are satisfactory.

EPS recycling is marked by considerable turmoil. The ban on HBCD stipulated by the POP Regulation No. 850/2004 (EC), which will take effect on 1st October 2016, is now having an impact on all EPS material flows. EPS insulation boards are no longer selling at all in the market. Temporary storage facilities are being filled. Even incineration plant managers are refusing to accept this enormous material flow. In this respect, too, the governing authorities are leaving not only waste disposal managers, but now also craftsmen in the lurch with regard to the problems caused by the increasing impact that chemicals legislation is having on waste management regulations. This is also true for roofers and those involved in building insulation and loft conversion.

2.1 Waste plastics:

As early as at the beginning of the summer break there was tremendous supply of used plastics. Since then plastics processors have been able to fill their processing warehouses with select quality grades at favourable prices. Now that the summer break is over, this situation has not yet changed. High incineration prices are contributing to the current situation, which has led to an increasing amount of used plastics being sorted out. Above and beyond this, the outflow of used plastics to the Far East is faltering.

PE waste prices, including those of post-industrial and post-user waste, have been reduced by an average 18 €/t and 11 €/t respectively. The prices of PP, PVC and PS listed by EUWID have held their own. Instead of continuing to process plastics at a loss, recyclers have been

bvse market report on plastics, September 2016

withdrawing from certain submarkets for some time. This is true for the PS markets and ultimately for PP recycling, too.

The PET markets have been subject to considerable change for about one year. For example, the PET market has changed from a market with little supply to a buyers' market. Thus large amounts of used PET bottles have been on offer for several months. The bottle recyclers' warehouses are replete with processing goods. The purchase prices of PET bottles continued to fall considerably in August. Sales of PET flakes to bottle manufacturers are still stable.

2.2 Recyclates

Demand for recyclates is low up to and including September. Above and beyond this, plastics recyclers are under price pressure from favourable virgin materials. Demand for recyclates from HDPE and PP in particular is low. Even though the economic situation is assessed as positive in the building sector, this success is no longer having an impact on the secondary markets. Plastics recyclers agree in their reports that there are considerable amounts of used plastics in the markets. There are favourable purchase opportunities. Thus the incoming goods warehouses are replete with stocks and, accordingly, their demand for new processing goods is restrained. Nevertheless recyclate sales are faltering because plastics processors are resorting to the low-priced virgin materials.

3 The Plasticker Price Index

The plasticker internet platform, cf. <u>http://plasticker.de</u>, 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 September 2016. These listings thus merely reflect an interim situation that does not become definitive until the beginning of October 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 August 2016 the average price published by plasticker was listed 7 €/t higher than in the previous month. The average quotes for standard plastics have changed only slightly since March. The listings for August 2016 (557 €/t) are 46 €/t lower than in July 2015 (610/ €/t). In August demand for standard plastics was restrained. Some listings rose by 10 €/t to 110 €/t, while others fell by 10 €/t to 60 €/t. Thus the prices of the following quality grades changed considerably: HDPE regranulates -60 €/g, PS regranulates + 110 €/t and PET bale goods + 60 €/t.

The first preview of the September listings, which cannot be definitively reported until the beginning of October, shows that the average price is likely to remain almost unchanged. In September the standard plastics markets can be assessed as satisfactory despite the summer break. HDPE regranulates, PP regrind and PP regranulates are likely to reach very low levels.

byse market report on plastics, September 2016

	September 2016 ⁶	Aug. 2016	July 2016	June 2016	May 2016	April 2016	Aug. 2015
HDPE regrind ¹	600	600	610	610	620	610	640
HDPE regranulates ⁵	840	850	910	920	920	890	930
LDPE bale goods ²	200	190	180	240	220	330	330
LDPE regrind ¹	620*	660*	670	730	720	560*	560*
LDPE regranulates ⁵	850	820	840	820	800	830	1020
PP bale goods ³	240	240	230	160	150	220	270
PP regrind ¹	520	540	570	570	550	540	620
PP regranulates ⁵	820	800	840	830	830	840	1020
PS regrind ⁴	670	670	640	630	620	610	700
PS regranulates ⁵	1010	990	880	880	950	990	990
PVC_P regrind ¹	440	390	420	410	380	410	430
PVC_U regrind ¹	440	460	430	410	420	450	470
PET bale goods	250	240	180	140	130	180	160
PET regrind	370	440	400	340	440	420	400
coloured							
Average Price	(562)	564	557	549	554	563	610

Table 3: Listings for standard plastics in plasticker in \in /t.

*: 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 August 2016 the average price of technical plastics listed by plasticker was almost unchanged at $1150 \notin t$ compared to the previous month. A comparison of the average prices for August 2016 ($1150 \notin t$) with those for August 2015 ($1310 \notin t$) shows the current price to be $160 \notin t$ lower. The prices of the following quality grades changed considerably in July 2016: PC regranulates + $130 \notin t$. In August the technical plastics markets were assessed as restrained.

The first preview of the September quotes, which, however, cannot be definitively reported until the beginning of October, shows the average price to be $17 \notin /t$ lower. Up until 13 September 2016 the plasticker internet platform indicated restrained demand for technical plastics. Technical plastics can still be purchased at very favourable prices.

	Sept. 2016 ⁶	Aug. 2016	July 2016	June 2016	May 2016	April 2016	Aug. 2016
ABS regrind	690	670	660	670	700	680	780
ABS regranulates ⁵	1140	1320	1270	1290	1250	1230	1410
PC regrind	900	830	810	830	900	880	890
PC regranulates ⁵	1840	1930	1800	1870	1750	1760	2080
PBT regrind	460	470	500	490	470	440	530
PBT regranulates	1560	1450	1600	1620	1710	1680	1710
PA 6 regrind	930	950	920	930	970	950	1050
PA 6 regranulates ⁵	1420	1500	1590	1600	1610	1610	1860
PA 6.6 regrind	910	900	920	870	920	950	1130
PA 6.6 regranulates ⁵	1580	1600	1730	1760	1800	1690	2030
POM regrind	640	600	590	590	600	600	630
POM regranulates ⁵	1520	1580	1490	1430	1530	1550	1620
Average Price	(1133)	1150	1156	1163	1184	1168	1310

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

byse market report on plastics, September 2016

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** (<u>www.plasticker.de</u>). 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, Friday 23 September 2016

Dr Thomas Probst, bvse