

bvse market report on plastics, November 2017

1 The primary plastics market

The German, European and international economies are booming - and this is having a very positive impact on the entire plastics industry. Thus, the Cesifo group has conducted research into the business climate in Germany, Europe and many other countries around the globe, cf. www.cesifo-group.de.

The mood in German boardrooms has reached a new all-time high. The ifo business climate index rose in October, reaching a new record value of 116.7 points - compared to 115.3 points in September. Companies are taking a very optimistic view of the next few months. They are also adjusting the current business situation upwards. The German economy is working at full speed. In the processing industry, the index has risen to a new record high, too. Industrial companies have been markedly more satisfied with their current business activities. In addition, their expectations for the next few months have reached a new annual high.

The ifo business climate index for the Eurozone has reached new record levels. In the fourth quarter it improved from 35.2, reaching 37.0 balance points in November. This was the best value since autumn 2000. Experts are assessing the situation as markedly better. However, their expectations are slightly deteriorating. Accordingly, the upswing in the Eurozone will continue in the next few months. Nevertheless, the speed at which the current upswing is taking place is likely to slow down slightly.

The ifo business climate index for the global economy has reached the highest value since the second quarter of 2011. Experts are, once again, assessing the current situation as more favourable than in the previous quarter. Their expectations, too, were more optimistic. The gradual recovery in the global economy is thus likely to gain momentum. The climate has improved in almost all parts of the world. Experts are assessing the current situation as more favourable everywhere, except for the Middle East and North Africa.

1.1 Standard plastics: The average price of standard plastics, which is listed at 1337 €/t, has remained almost unchanged compared to the previous month, when it was at 1340 €/t, cf. Table 1. While the prices of polyolefin have risen by 35 €/t and those of PVC by 10 €/t, PS prices have fallen by 120 €/t. The average listings for October 2017 (1337 €/t) exceeded those for October 2016 (1259 €/t) by as much as 78 €/t. The development in plastics prices is running parallel to that in the related precursors. Packaging PET was listed at an average 1245 €/t in October and thus, 20 €/t lower than in the previous month, when it reached 1265 €/t. The situation on the market for standard plastics has now been reversed. Processors are hesitant in placing orders because they are hoping for purchase prices to fall by the end of the year.

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

Prices in €/t	Oct. 2017	Sept. 2017	August 2017	July 2017	June 2017
LDPE film grade	1350- 1460	1320- 1430	1270- 1380	1270- 1380	1350- 1460
LLDPE film grade	1330- 1440	1300- 1400	1250- 1350	1250- 1350	1300- 1400
HDPE injection moulding	1320- 1370	1290- 1340	1240- 1290	1240- 1290	1320- 1370
HDPE blow moulding	1340- 1390	1310- 1360	1260- 1310	1260- 1310	1340- 1390
PS crystal clear	1530- 1600	1650- 1720	1460- 1530	1480- 1550	1460- 1530
PS high impact	1630- 1700	1750- 1820	1560- 1630	1580- 1650	1560- 1630
PP homopolymer	1330- 1390	1300- 1360	1250- 1310	1250- 1310	1300- 1360
PP copolymer	1380- 1440	1350- 1410	1300- 1360	1300- 1360	1360- 1420
PVC tube grade	880- 940	870- 930	860- 920	860- 920	890- 940
PVC film/cables	930- 980	920- 970	910- 960	910- 960	940- 980
Average Price	1337 ± 233	1340 ± 268	1270 ± 214	1274 ± 219	1315 ± 212

1.2 Technical plastics:

In October 2017, technical plastics were listed at stable prices, reaching 2719 €/t on average. Thus, the average listings for October 2017 (2719 €/t) exceeded those for October 2016 (2329 €/t) by as much as 390 €/t, cf. Table 2. The PC price was 75 €/t higher and the PA 6 price 60 €/t lower. Thus, technical plastics prices remained at a long-term record level. To date, demand for technical plastics has been very high throughout the whole year - a winter break is not yet discernible.

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 2017	August 2017	June 2017	April 2017
PMMA crystal clear	3400 – 3600	3400 – 3600	3050 – 3400	2800 – 3000
ABS natural	1750 – 1850	1750 – 1850	1800 – 1900	2000 – 2100
ABS white/black	1850 – 1900	1850 – 1900	1900 – 1950	2100 – 2150
ABS mixed colours	2450 – 2650	2450 – 2650	2500 – 2700	2700 – 2900
PC crystal clear	3400 – 3600	3300 – 3550	3200 – 3350	3200 – 3350
PC GF reinforced	3600 – 3800	3500 – 3750	3400 – 3650	3400 – 3500
POM natural	1900 – 2000	1900 – 2000	1900 – 2000	1900 – 2000
PA 6 natural/black	2290 – 2540	2350 – 2600	2350 – 2600	2350 – 2600
PA 6 GF reinforced	2390 – 2490	2450 – 2550	2450 – 2550	2450 – 2550
PA 66 natural	2950 – 3150	2950 – 3150	2950 – 3150	2750 – 2900
PA 66 GF reinforced	3000 – 3250	3000 – 3250	3000 – 3250	2800 – 3000
Average Price	2719	2716	2682	2657

2 The secondary plastics markets according to 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 2017. These listings thus merely reflect an interim situation that will not become definitive until the beginning of December 2017.

2.1 Standard plastics: The average value is becoming clear. In 2017, the previous listings for standard plastics have been fluctuating around the average value of 543 €/t ± 9 €/t. The difference between the minimum value, listed at 527 €/t in January, and the maximum value, reaching 556 €/t in June, is only 29 €/t. It is not possible to discern an annual upward or downward trend, which suggests that the market situation was ultimately very stable during the first 10 months of 2017.

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This trend also becomes obvious if you compare the average prices in plasticker with each other. Thus, the average listing for October (541 €/t) almost held its own compared to that for September, which reached 543 €/t, see Table 3. A comparison of the current October listing (541 €/t) with that for the previous year (527 €/t) shows the difference to be 14 €/t. In October 2017, only two prices changed markedly, i.e. by more than ± 40 €/t: HDPE regranulates - 60 €/t and PS regranulates + 80 €/t. In October demand for plastics was satisfactory.

The first preview of the November listings, which cannot be definitively reported until the beginning of December 2017, shows the average price to be 19 €/t lower. As per 15 November 2017, the plastics markets showed satisfactory demand for plastics.

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

	Nov. 17 ⁶	Oct. 2017	Sept. 17	Aug. 17	July 17	Oct. 16
HDPE regrind ¹	570	560	600	570	570	590
HDPE regranulates ⁵	870	870	930	880	920	860
LDPE bale goods ²	230	200	230	260	270	210
LDPE regrind ¹	510*	630	670	570	630	580
LDPE regranulates ⁵	710	740	770	750	800	870
PP bale goods ³	190	210	200	260	230	250
PP regrind ¹	530	520	530	550	560	540
PP regranulates ⁵	850	800	790	800	830	750
PS regrind ⁴	610	590	630	600	610	600
PS regranulates ⁵	870	920	840	810	940	900
PVC_P regrind ¹	370*	370*	410	460	400	360
PVC_U regrind ¹	520*	520	500	430	460	410
PET bale goods	160	160	170	170	180	110*
PET regrind coloured	320	310	330	330	390	350
Average Price	(522)	541	543	531	556	527

*: 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

2.2 Technical plastics: In October 2017, the average technical plastics price in plasticker was 20 €/t lower than in the previous month, see Table 4. A comparison of the average prices for October 2017 (1228 €/t) with those for the previous month (1103 €/t) shows the current price to be 125 €/t higher. The trend towards an overall fall in technical plastics prices has been continuing since May 2017, when they were listed at 1333 €/t. Despite these gradual price reductions technical plastics are listed at very high prices. There is considerable demand for technical plastics. Only ABS regranulate prices, which fell by 130 €/t, changed more markedly, namely by more than ± 70 €/t, in October 2017.

The first preview of the November listings, which cannot be definitively reported until the beginning of December 2017, shows that the average price is likely to be markedly higher, reaching 1285 €/t - compared to 1228 €/t in October. Up until 15 November 2017, the plasticker internet platform showed satisfactory demand for technical plastics.

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

	Nov. 17 ⁵	Oct. 17	Sept. 17	Aug. 17	July 17	Oct. 16
ABS regrind	580	630	650	640	670	670
ABS regranulates ⁵	1430	1250	1380	1530	1370	1160
PC regrind	870	940	930	840	880	860
PC regranulates ⁵	2050	2110	2150	2140	2270	1790
PBT regrind	470	440	410	440	470	470
PBT regranulates	1740	1630	1620	1640	1810	1350
PA 6 regrind	860	820	830	870	850	860
PA 6 regranulates ⁵	1850	1680	1780	1750	1890	1390
PA 6.6 regrind	850	820	840	860	820	850
PA 6.6 regranulates ⁵	1810	1760	1690	1740	1750	1560
POM regrind	720	650	700	720	670	580
POM regranulates ⁵	2190	2010	2000	1690	2200	1690
Average Price	(1285)	1228	1248	1238	1304	1103

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

3 Evaluation of the secondary plastics markets

A comparison between the information given by EUWID and plasticker for October 2017 shows that the post-user PE price listed by EUWID in its Price Watch for Used Plastics is the only one to have fallen by 15 €/t. Post-industrial waste prices are proving to be stable. Thus, PP prices are listed 10 €/t higher, while PVC and PS have held their own. Plasticker also reports that average standard plastics prices have remained almost unchanged. However, this can be explained by regrind and regranulates comprising primary materials, too. While plasticker shows demand for plastics to be satisfactory, the market situation described by EUWID is complicated throughout.

3.1 Waste plastics:

Germany is still being inundated with used plastics. As a consequence, the markets are seen to have undergone a number of changes. The structures developed by traders and brokers are consolidating. Waste plastics prices are falling gradually. It is no longer possible to regulate the markets by shifting large quantities of used plastics to China. Exports to the Tiger economies are limited by the markedly decreased intake capacity of these markets. The number of import licences issued for used plastics has been drastically reduced. Experts are estimating that it will only be possible to export half of the previous amount of used plastics, i.e. five million tonnes, from Europe to China in the near future. According to reports by exporters to China, the plastics quantities traded have slumped considerably. Experts are wondering whether or not exports to China might even be suspended entirely for some time. Plastics imports to China are subject to tight checks. An increasing amount of goods are reported to have been returned due to relatively minor contaminations.

Exporters are trying to find exits in order to cope with the changes in the export situation. For example, they are exporting regrind and regranulates to China. Other market participants are focusing on national and European plastics recycling markets. Used plastics are now being separated into further fractions according to the colour and type of plastic. High-quality grades are selling well in these markets. The production of residue-derived fuels from used plastics has been gaining considerable momentum.

The information given by the monthly price indices for post-user plastics can only serve as a rough guideline at present. All price listings are subject to quality and quantity. Thin film and contaminated film are no longer selling. It has become very difficult to sell used plastics, too. In October, EUWID indicated price falls of 5 €/t to 30 €/t for waste plastics from the post-user PE sector. For minor quality grades, it is possible to observe anything from price cuts to

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additional payments. Post-industrial waste is still finding sales channels without any difficulty. At present high-quality PP in particular is being sought. Post-industrial PP rose by an average 10 €/t. Transparent PET beverage bottles are being sought. The prices of used plastics from PP, HDPE and PS are fluctuating markedly more considerably than in previous years. The demand and supply situation for these waste plastics is continually changing.

3.2 Recyclates:

Recyclers are only accepting high-quality waste plastics. Plastics recyclers are finally being supplied with sufficient quantities of high-quality waste plastics. Sorted packaging materials must meet the plastics recyclers' requirements because it will otherwise be hard to sell them. If the quality of the materials is insufficient, plastics recyclers can enforce correspondingly high price cuts. Some experts are pointing out that plastics recyclers are keeping no more than low quantities in stock at the end of the year. However, the favourable purchase situation concerning processing input is seducing them into storing considerable quantities of high-quality plastics.

The development in plastics recyclates is following the example set by virgin materials. The high price of virgin materials is boosting the use of recyclates. In October, the EUWID Price Watch for Regrind indicated stable prices. The regranulate prices listed by the KI price index are also stable. Some primary plastics have been subject to repeated short-term supply shortages throughout 2017. Recyclates are mitigating the effects of these supply deficits. HDPE, PP and PS in particular are being affected by these market distortions.

Demand for recyclates from technical plastics is continually high. The developments in these recyclates are following the trend set by virgin materials very directly. The average listing determined by plastics for the first ten months is 1255 €/t ± 50 €/t. The listings for technical plastics peaked at 1333 €/t in May and reached their lowest level in January at 1183 €/t. Demand for recyclates, which has been relatively high in November, does not suggest that there will be a long-term winter break.

Compared to the summer months, the quantities of PET beverage bottles have fallen considerably, and thus, the amount of PET beverage bottles being returned to collection points is now markedly lower, too. Or to put it another way: PET recyclers are looking for processing input, and this is leading to the prices of used beverage bottles soaring. The October listings indicated a rise in the prices of used and returnable PET beverage bottles. In October, transparent PET (95/5 to 100) was listed 10 €/t higher, mixed PET (70/30 to 90/10) was quoted 10 €/t higher and the price of PET coloured (< 70/30) held its own compared to the previous month. PET recycling is benefiting from the considerable demand for primary goods. PET recyclers are asserting themselves in the market based on their recyclates. Demand for regrind and regranulates is high. Recyclate prices have remained largely stable; however, they are under pressure from virgin materials.

4 Explanatory information on the 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. EUWID: 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 tonnes.

The monthly quotes for **secondary plastics**, which are updated on an hourly basis, can be calculated using the price lists 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. 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. Furthermore, plasticker does not distinguish between the following grades: transparent,

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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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