1 The primary plastics market

The Munich Ifo Institute, cf. www.cesifo-group.de, has considerably lowered the figures for its economic forecast for Germany. Economic researchers have reduced their economic growth forecast from 2.6 % to 1.8 % this year. Having initially reckoned with a 2.1 % rise, researchers are now also predicting as little as 1.8 % for next year. Ifo's economic boss Wollmershäuser explained that business developments had been markedly worse than anticipated. He added that the business climate measured by the Ifo Institute had fallen, while the number of risks incurred in the global economy had risen. According to the experts' estimates, the Germany's boom will none the less continue.

PlasticsEurope Germany has now published the German plastics industry's first quarterly report for 2018. In the first quarter, the production of primary plastics fell by 3.0 % compared to the preceding three months. However, the previous year's level was exceeded by 1.5 %. In addition, the manufacture of plastic goods rose by 0.3 % compared to the preceding quarter. Production was thus raised by 4.0 % compared to the previous year.

The turnover achieved through the production of primary plastics fell by 0.3 % in the first quarter compared to the previous quarter. However, it was 6.4 % higher than in the same period of the preceding year. The turnover achieved by manufacturing plastic goods increased by 0.4 %. It was thus 5.2 % higher than in the preceding year.

Standard plastics

The average standard plastics price was listed at 1310 €/t in May 2018 and thus remained almost unchanged compared to the previous month, when it had reached 1314 €/t, cf. Table 1, even though PS was listed 50 €/t lower than in the previous month. The average listing for May 2018 (1310 €/t) is 38 €/t below that for May 2017 (1348 €/t). Packaging PET was quoted at an average 1300 €/t in May 2018 and thus 40 €/t higher than in the previous month, when it had reached 1260 €/t. Experts are expecting PET prices to rise further, which shows that there is considerable demand and, at the same time, scarce supply. In May there was still a considerable supply of standard plastics; however, demand was restrained. PE and PP plastics prices are expected to rise slightly in June.

Table 1:	FI IWID listings	for standard plastics	over the nast five	months: prices in €/t.
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Prices in €/t	May 2018	April 2018	March 2018	Feb. 2018	Jan. 2018
LDPE film grade	1260- 1400	1260- 1400	1300- 1400	1320- 1430	1300- 1410
LLDPE film grade	1240- 1380	1240- 1380	1280- 1380	1300- 1410	1280- 1390
HDPE injection moulding	1270- 1320	1260- 1310	1260- 1310	1280- 1330	1260- 1310
HDPE blow moulding	1290- 1340	1280- 1330	1280- 1330	1300- 1350	1280- 1330
PS crystal clear	1490- 1550	1540- 1600	1660- 1720	1630- 1690	1530- 1590
PS high impact	1590- 1650	1640- 1700	1760- 1820	1730- 1790	1630- 1690
PP homopolymer	1360- 1410	1350- 1400	1350- 1400	1370- 1420	1330- 1380
PP copolymer	1410- 1460	1400- 1450	1400- 1450	1420- 1470	1380- 1430
PVC tube grade	890- 950	880- 950	880- 950	890- 950	880- 940
PVC flm/cables	940- 990	930- 990	930- 990	940- 990	930- 980
Average Price	1310 ± 217	1314 ± 256	1343 ± 266	1351 ± 256	1313 ± 229

2 The secondary plastics markets in 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 June 2018. These listings thus merely reflect an interim situation that will not become definitive until the beginning of July 2018, cf. Tables 3 and 4.

2.1 Standard plastics:

The summer months are starting with a moderate price rise. Thus, May prices (551 €/t) are listed 10 €/t higher than in the previous month, when they had reached 541 €/t, cf. Table 2. A comparison of the average prices for May 2018 (551 €/t) with those for the preceding year (549 €/t) shows the prices to have remained almost unchanged. The following listings changed by more than \pm 40 €/t: PS regrind +60 €/t, PS regranulates -90 €/t and PVC_P regrind +150 €/t. The May price index shows demand for plastics to be restrained compared to the preceding month. PVC prices climbed markedly in May.

The preview of the June listings shows the average price to have almost held its own at 554 €/t. The listings of each commodity indicate that prices have changed only slightly compared to the previous month. In June, only PS regranulates seem to have offset the loss incurred in May (900 €/t). The June Price Index, as per 15 June 2018, shows restrained demand for plastics to date.

	June 18 ⁶	May 18	April 18	March 18	Feb. 18	May 17
HDPE regrind ¹	560	580	590	590	530	590
HDPE regranulates ⁵	860	840	840	930	850	930
LDPE bale goods ²	220*	270	270	240	230	290
LDPE regrind ¹	630	610	580	660	610*	490
LDPE regranulates ⁵	740	740	760	780	830	800
PP bale goods ³	190*	210	250	200	190*	220
PP regrind ¹	530	530	530	550	570	520
PP regranulates ⁵	840	860	900	800	960	800
PS regrind⁴	640	600	540	580	620	620
PS regranulates⁵	1010	900	990	960	1020	960
PVC_P regrind ¹	470*	450	300*	270	270	490
PVC_U regrind ¹	560*	520*	490*	470*	490*	480
PET bale goods	190*	220*	200	170	150	180
PET regrind coloured	310	340	330	320	330	320
Average Price	(554)	551	541	537	546	549

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

2.2 Technical plastics:

In May 2018 (1264 €/t) the average technical plastics price in plasticker was listed 35 €/t higher than in the previous month (1229 €/t), cf. Table 3. A comparison of the average prices for May (1263 €/t) with those for the previous year (1333 €/t) shows the current price to be 70 €/t lower. The May price index shows demand for plastics to be satisfactory. In May 2018 the following prices changed markedly, i.e. by more than \pm 70 €/t: PA 6.6 regranulates \pm 230 €/t and POM regranulates \pm 160 €/t. PA commodity prices have been rising by gradations since March, with PA 6.6 regranulates reaching the highest level in four years in May. Since September 2017, there has been an upward trend in PC.

^{*:} 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

The preview of the June listings of 15 June 2018 shows plastics prices to have risen by 18 €/t, reaching 1282 €/t. To date, no price leaps are discernible. The June price index shows demand for plastics to be restrained.

Table 3: Listings for technical	plastics in	plasticker.	prices in €/t.
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	June ⁶	May 18	April 18	March 18	Feb. 18	Jan. 18
	18					
ABS regrind	740	710	680	650	650	650
ABS regranulates⁵	1450	1470	1400	1240	1350	1360
PC regrind	950	860	800	870	830	900
PC regranulates ⁵	1950	2010	2060	2130	2060	2120
PBT regrind	500	430	480	440	430	460
PBT regranulates	1670	1630	1590	1530	1600	1670
PA 6 regrind	900	890	820	780	810	820
PA 6 regranulates ⁵	1890	1860	1790	1750	1790	1740
PA 6.6 regrind	930	940	900	820	840	850
PA 6.6 regranulates ⁵	2130	2040	1810	1920	1860	1700
POM regrind	680*	680	620	650	700	670
POM regranulates ⁵	1590	1650	1800	1440	1430	1380
Average Price	(1282)	1264	1229	1185	1196	1193

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 of the information provided by EUWID and plasticker for May 2018 shows that the film grade prices listed in the EUWID Price Watch have risen by an average 12 €/t. In plasticker, bale good prices were listed lower than in the preceding month. According to plasticker, the May demand for plastics was restrained, while it was quite considerable according to EUWID.

3.1 Used plastics:

Plastics recyclers determine plastics markets based on their demand. In Germany, a sufficient supply of used plastics is available at sufficient quality - and that not least because plastics are being imported to Germany from other countries. High-quality grades often push aside the lower grades that are caused by sorting lightweight plastics packaging. Plastics recyclers are only accepting high-quality materials. Only film grade of very high quality is finding its sales channels in Germany. As a rule, it is necessary to pay plastics recyclers and additional sum for the film grade materials being processed.

The technical inspections conducted in waste incineration plants during the summer months are leading to a limited amount of waste from trade and industry being accepted. The proportion of plastics in these materials is causing high calorific values. This can limit the throughput of incineration plants and is also leading to an increase in the amount of used plastics. This is also one of the reasons why plastics waste from the manufacturing industry is now being launched onto the markets.

It is still exciting to observe the developments in the shipment of plastics waste to the Far East. The import procedures to Vietnam, Thailand, Indonesia, Malaysia, India and Taiwan are rapidly changing. For example, Vietnam and Malaysia are stopping certain ports from accepting plastics waste. The People's Republic of China is now beginning to accept high-quality PET flakes. High-quality regranulates can also be shipped to China, cf. the relevant BIR reports.

The EUWID price listings for May show that film grade continues to gain in value. For example, post-user PE bale goods were listed 12 €/t higher in May than in the previous month. PP film grade was listed an average 5 €/t higher. The post-industrial PP price rose by an average 16 €/t.

3.2 Recyclates:

There is considerable demand for recyclates, which supplement virgin materials. As far as the recycling of mixed plastics is concerned, it seems to be benefiting from the considerable foreign demand for these products, while the domestic demand for products made from mixed plastics is restrained. Plastics recyclers are only accepting plastics waste of the very best quality. The prices listed in price indices only apply so long as a sufficient supply of material is available at a sufficient quality. Plastics recyclers are rejecting poor-quality materials.

The PET markets are assessed as being inconsistent. Demand for PET bottles is still high. However, it has been impossible to implement price rises in used PET bottles in this market. The May listings for used and returnable PET beverage bottles, including transparent PET (95/5 to 100), mixed PET (70/30 to 90/10) and coloured PET (< 70/30), have held their own.

Demand for PET recyclates is high because there are considerable supply shortages in the primary markets. In May, primary material prices rose by an average 40 €/t. Demand for regrind and regranulates is high. Experts are therefore expecting PET recycling prices to rise further.

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** (<u>www.plasticker.de</u>). 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, 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