1 General economy and reference to the plastics industry

K 2022 sends out encouraging signals to the plastics industry, even in difficult times. At the K 2022 World Fair for Plastics, more than 3,037 exhibitors from all over the world presented their products and services in Düsseldorf from 19 to 26 October. The mood among the approx. 176,000 trade visitors was correspondingly good. Many use the trade fair to conduct business and for networking across the entire plastics and rubber industry, see the news from K-Aktuell of 26 October 2022, https://www.k-aktuell.de/tv/best-of-k-2022/.

K 2022 was once again the international "shop window" in which countless innovations associated with the construction of plastics machines, plastics production and plastics processing were presented. K 2022 addressed three megatrends of our times: climate protection, the circular economy and digitisation. Even in advance, there was tremendous interest in K 2022, see the GKV press release of 18 October 2022,

https://www.gkv.de/de/service/presse/k-2022-adressiert-megatrends-unserer-zeit.html

2 Primary markets - standard plastics

All of the parameters are based on falling prices: low demand from the private and commercial sector is met with adequate supply and the processors' warehouses are replete with stocks. A sufficiently high supply of standard plastics is countered by subdued demand. Crude oil prices are stabilising at around 90 US \$ per barrel and the prices of the input products are also falling.

And, as a consequence, the descent of prices, which has been ongoing since April 2022, continued in September. In September 2022 the EUWID average price of 1,717 €/t was 116 €/t lower than in the previous month (1,833 €/t), see Table 1. In a year-on-year comparison, it can be seen that the average quotes from September 2022 (1,717 €/t) were 105 €/t lower than those of the previous year (1,822 €/t), see EUWID. www.euwid-recycling.de. The quotes for PE fell by an average 69 €/t, PP by 200 €/t, PS by 200 €/t and PVC by 45 €/t. All average prices were quoted below 2,000 €/t.

PET: The PET market is very well supplied with European goods and imports. Producers' warehouses are overflowing, but the processors also have well-stocked warehouses. The move into processing products is stalling because demand for goods from private and commercial consumers is falling due to the recession. Packaging PET was quoted at an average price of 1,610 €/t in September, and thus 90 €/t lower than in the previous month, see https://www.kiweb.de/.

Table 1.	Standard plastics prices according to EUWID over the past five months, listed in €/t.
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Prices in €/t	September 2022	August 2022	July 2022	June 2022	May 2022
LDPE film grade	1600- 1700	1650- 1800	1750- 1900	1850- 2000	2000- 2150
LLDPE film grade	1550- 1700	1600- 1750	1700- 1850	1800- 1950	1950- 2100
HDPE injection moulding	1400- 1550	1450- 1650	1550- 1700	1700- 1900	1800- 2000
HDPE blow moulding	1350- 1500	1400- 1600	1500- 1700	1650- 1850	1750- 1950
PS crystal clear	1850- 1950	2050- 2150	2450- 2550	2450- 2550	2580- 2680
PS high impact	1900- 2000	2100- 2200	2500- 2600	2500- 2600	2630- 2730
PP homopolymer	1680- 1830	1880- 2030	2030- 2180	2150- 2350	2300- 2450
PP copolymer	1730- 1880	1930- 2080	2080- 2230	2200- 2500	2350- 2500
PVC tube grade	1680- 1780	1730- 1830	1790- 1890	1860- 1950	1860- 1960
PVC film/cables	1800- 1900	1840- 1940	1890- 1990	1950- 2050	1960- 2060
Average Price	1717 ± 181	1833 ± 230	1992 ± 332	2091 ± 294	2188 ± 278

3 Secondary plastics markets in the plasticker price index

The plasticker internet platform, see 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 the month of the report, in this case October 2022; they will not become definitive until early November 2022. The two quotes stated for October 2022 below indicate only an interim situation, see the left-hand column in Table 2 and Table 3.

3.1 plasticker: Standard plastics

The prices of standard plastics have stabilised in the plasticker quotes. In September, the standard plastics were quoted at an average 804 €/t and were thus 43 €/t higher than the average quote for August of 761 €/t, see Tab. 2.

The average price for September 2022 (804 €/t) was 313 €/t above that of the previous year (491 €/t). The September price index is characterised by subdued demand for plastic.

There were significant price changes of greater than ±40 €/t for: HDPE regranulates -100 €/t, LDPE regrind +60 €/t, LDPE regranulates +80 €/t, PP baled goods +240 €/t, PP regrind +50 €/t, PP regranulates -180 €/t, PS regrind +350 €/t, PS regranulates -170 €/t, PET baled goods +90 €/t and PET regrind mixed colours -80 €/t.

The probable average price in October 2022 (808 €/t) is practically the same as in the previous month (804 €/t) see Tab. 2. The price index of 20.10.2022, shows subdued demand for plastic to date.

	October ⁶ 22	Sept. 22	August 22	July 22	June 22	Sept. 21
HDPE regrind ¹	770	770	780	1020	1010	620
HDPE regranu- lates ⁵	1060	980	1080	1250	1250	830
LDPE bale goods ²	200*	270	290	330*	160*	290*
LDPE regrind ¹	550*	560*	500*	610*	790*	380
LDPE regranu- lates ⁵	1000	990	910	1120	1220	690
PP bale goods ³	530*	470*	230*	160*	180*	0*
PP regrind ¹	940	790	750	830*	860*	620
PP regranulates ⁵	1220	1300	1480	1520	1550	930
PS regrind ⁴	1030*	1100*	750*	1110*	1090*	700*
PS regranulates⁵	1270	1470*	1640	2130	1720	890
PVC_P regrind ¹	1010*	900*	620*	880*	900*	270*
PVC_U regrind ¹	820*	720*	700*	750*	0*	50*
PET bale goods	420*	450*	360*	90*	10*	180*
PET regrind mixed colours	490	480	560	720	820	420
Average Price	(808)	804	761	894	826	491

Table 2: Standard plastics price according to plasticker; listed in €/t.

3.2 plasticker: Technical plastics

^{*:} 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"; ⁵: preview (may be amended by additional quotes)

For September 2022, there was an average price of 1,932 €/t, which was 60 €/t lower than that of the previous month (1,992 €/t), see Table 3. The average price for September 2022 (1,932 €/t) was 314 €/t above that of the previous year (1,618 €/t).

There were significant price changes of greater than ±70 €/t for: ABS regrind +80 €/t, ABS regranulates -400 €/t, PC regranulates -180 €/t, PBT regrind +130 €/t, PBT regranulates -250 €/t and POM regranulates -170 €/t. The price index for September 2022 is characterised by subdued demand for plastic.

The probable average price in October 2022 (1,890 €/t) is thus 42 €/t lower than in the previous month (1,932 €/t). The price index of 21.09.2022 shows slow demand for plastic.

	October ⁶ 22	Sept. 22	August 22	July 22	June 22	Sept. 21
ABS regrind	1020	1040	960	1270	1450	990
ABS regranu- lates ⁵	1850	1990	2390	2340	2280	1900
PC regrind	1320	1270	1210	1190*	1110*	930
PC regranulates ⁵	2510	2520	2700	2660	2680	2410
PBT regrind	640	820	690	830*	980*	710*
PBT regranulates	2050	2260	2510	2330	2350	2200
PA 6 regrind	1130	1110	1060	920*	1130	1060*
PA 6 regranu- lates ⁵	3080	3050	3100	2990	2880	2420
PA 6.6 regrind	1290	1410	1410	1200*	980*	1070
PA 6.6 regranu- lates ⁵	3510	3520	3570	3940	3760	2570
POM regrind	880	890	830	810*	1190*	700
POM regranu- lates ⁵	3400	3300	3470	3480	3360	2780
Average Price	(1890)	1932	1992	1997	2013	1618

Table 3: Technical plastics price according to plasticker; listed in €/t.

4 Secondary plastics markets

The current situation in plastics recycling is reminiscent of the start of the pandemic, in particular that from May 2020 onwards. The plastics recyclers' warehouses are full, both in terms of input and output. And we have seen truly enormous price reductions, for virgin grade as much as for recyclates and plastic wastes. This situation is further aggravated by the high energy costs. In particular, for plastic recycling, the costs for thermal reshaping are enormous.

And we once again have a problem with virgin grade; i.e., the plastics processors are using the cheap virgin grade - but recyclates are being ignored. As a consequence, recyclers are decommissioning individual lines due to insufficient demand.

The different market conditions in pricing for virgin grade and recyclates greatly disadvantage plastic recycling. Plastics recyclers should profit from mandatory minimum recyclate content if they are defined at a sensible level for contact-sensitive and non-contact-sensitive applications. Or, put another way, mandatory minimum recyclate content should apply not just in the packaging sector, but also to products made from recycled mixed plastics.

4.1 Plastic wastes - processing input

^{*:} Supply figure too low to attain statistical significance; 5. equivalent to the grade "regranulates, black";

^{6.} preview (may be amended by additional quotes)

The prices of all waste quotes are falling markedly, see EUWID price index. The average price falls for PE post user baled goods is 41 €/t. The demand for plastic wastes is subdued. For PE production wastes, the average price falls for bale goods are 53 €/t and for PP production wastes 63 €/t.

4.2 Recyclates

Virgin grade prices are falling and, therefore, recyclate prices are also falling. The much lower prices for processing wastes are far from sufficient to compensate for the constantly rising processing costs of the plastics recyclers.

The demand for recyclates is subdued. Since there is good availability of virgin grade, and prices are falling sharply, plastics processors are increasingly using it again. PE regrinds have fallen by an average of 48 €/t, PP regrinds by 50 €/t, PS regrinds by 47 €/t and PVC regrinds by 37 €/t, see EUWID price index.

4.3 PET Recycling

There are surplus quantities of both PET virgin grade and used PET bottles in the markets; supply is far surpassing demand. And foreign goods are also flooding onto the German markets. Large quantities of used PET bottles are now being stored by processors. And, as a result, the prices for used PET single-use bottles have fallen significantly in September: PET transparent -150 €/t, PET mixed -140 €/t and PET coloured -50 €/t. Recyclers' sales or flakes and regranulates are stagnating. Detailed monthly reports on the PET prices for virgin grade and used bottles can be found in EUWID and KI Plastics Information Europe.

5 Explanation on the price quotes

A detailed discussion with information of price indices for virgin grades and waste plastics as well as precursor products can be found in EUWID Recycling and Disposal see www.euwid.de, or in EUWID Plastics www.euwid-recycling.de. EUWID: No guarantee for any of the prices.; prices ex station. As a rule, the prices quoted refer to quantities in excess of 20 tons.

The quotes for secondary prices, 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, see 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. Plasticker offers the quality grades regrind and regranulates both as virgin materials and as secondary goods. 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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