bvse market report: plastics, September 2022

1 General economy and reference to the plastics industry

The second quarterly report from the plasics industry in Germany for 2022, published by Plastics Europe Deutschland, is now available. The quarterly report from Plastics Europe Deutschland mainly considers the economic development of the plastics-manufacturing industry.

The fall in production of plastics in primary form in Germany consolidated further in the second quarter. After the fall of 0.9 % in the first quarter in comparison to the previous quarter, the fall in the second quarter of 2022, at minus 4.5 %, was even stronger. And the previous year's level was also missed by 2.5 %. The reduced production in many customer industries in Germany, for example the construction sector or plastics processing, led to lower domestic demand for plastics.

In the second quarter, sales of plastics in primary form rose by 2.9 % in comparison to the previous quarter and was \in 9.6 billion, seasonally adjusted. Of this, \in 3.6 billion was accounted for by domestic sales, an increase of 4.7 % in comparison to the previous quarter. Since the companies' production costs rose markedly, especially due to the increased energy costs, the growth in sales should be treated with caution. In some companies, the increase in sales was completely wiped out by the rise in manufacturing costs.

2 Primary markets - standard plastics

A sufficiently high supply of standard plastics is countered by subdued demand. There is still a drastic economic downturn. And, as a consequence, the descent of prices, which has been ongoing since April 2022, continued in July and August. In August 2022 the EUWID average price of 1,833 €/t was 159 €/t lower than in the previous month (1,992 €/t), see Table 1. In a year-on-year comparison, it can be seen that the average quotes from August 2022 (1,833 €/t) were more or less the same as those of the previous year (1,826 €/t), see EUWID. www.euwid-recycling.de. The quotes for PE fell by an average 100 €/t, PP by 150 €/t, PS by 400 €/t and PVC by 55 €/t.

PET: Contrary to the expectations of the experts, the PET market is well supplied. Even the seasonal higher demand for beverage bottles can be met. Cheap imports from Asia (China, India) and Egypt and Turkey are supplying the European market with PET. Packaging PET was quoted at an average price of 1,700 \notin /t in August 2022, and thus 200 \notin /t lower than in the previous month, see <u>https://www.kiweb.de/</u>.

Prices in €/t	August 2022	July 2022	June 2022	May 2022	April 2022
LDPE film grade	1650- 1800	1750- 1900	1850- 2000	2000- 2150	2150- 2300
LLDPE film grade	1600- 1750	1700- 1850	1800- 1950	1950- 2100	2100- 2250
HDPE injection moulding	1450- 1650	1550- 1700	1700- 1900	1800- 2000	1900- 2100
HDPE blow moulding	1400- 1600	1500- 1700	1650- 1850	1750- 1950	1850- 2050
PS crystal clear	2050- 2150	2450- 2550	2450- 2550	2580- 2680	2550- 2650
PS high impact	2100- 2200	2500-2600	2500-2600	2630- 2730	2600- 2700
PP homopolymer	1880- 2030	2030-2180	2150- 2350	2300- 2450	2350- 2550
PP copolymer	1930- 2080	2080-2230	2200- 2500	2350- 2500	2400- 2600
PVC tube grade	1730- 1830	1790- 1890	1860- 1950	1860- 1960	1900- 2000
PVC film/cables	1840- 1940	1890- 1990	1950- 2050	1960- 2060	2000- 2100
Average Price	1833 ± 230	1992 ± 332	2091 ± 294	2188 ± 278	2255 ± 278

Table 1: Standard plastics prices according to EUWID over the past five months, listed in €/t.

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3 Secondary plastics markets in the plasticker price index

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

3.1 plasticker: Standard plastics

Following the continuous rise in average prices from April 2022 ($665 \notin t$) to July 2022 ($894 \notin t$), standard plastics were quoted lower again in August 2022 at 761 $\notin t$, see Tab. 2. After the price rise of $68 \notin t$ in July, the average prices fell by $133 \notin t$ in August 2022. The average price for August 2022 ($761 \notin t$) was $230 \notin t$ above that of the previous year ($531 \notin t$). The price index for August is characterised by adequate demand for plastic.

What huge price changes - there were significant price changes of greater than $\pm 40 \notin /t$ for: HDPE regrind -240 \notin /t , HDPE regranulates -170 \notin /t , LDPE regrind -110 \notin /t , LDPE regranulates -210 \notin /t , PP bale goods +70 \notin /t , PP regrind -180 \notin /t , PS regrind -360 \notin /t PS regranulates -490 \notin /t , PET bale goods +270 \notin /t and PET regrind mixed colours -160 \notin /t .

The probable average price in September 2022 (803 \in /t) is once again quoted 42 \in /t higher than in the previous month (761 \in /t) see Table 2. The price index of 21.09.2022 shows lower purchase demand than in the previous month.

	September ⁶ 22	August 22	July 22	June 22	May 22	Aug. 21
HDPE regrind ¹	790	780	1020	1010	740	630
HDPE regranu- lates⁵	980	1080	1250	1250	1190	92
LDPE bale goods ²	250	290	330*	160*	330*	270*
LDPE regrind ¹	560*	500*	610*	790*	640*	420
LDPE regranu- lates⁵	1000	910	1120	1220	1030	700
PP bale goods ³	490*	230*	160*	180*	260*	0*
PP regrind ¹	790	750	830*	860*	670	570
PP regranulates ⁵	1360	1480	1520	1550	1480	880
PS regrind ⁴	1160*	750*	1110*	1090*	720*	650
PS regranulates ⁵	1480*	1640	2130	1720	1750	850*
PVC_P regrind ¹	770*	620*	880*	900*	900*	400*
PVC_U regrind ¹	680*	700*	750*	0*	730*	540*
PET bale goods	450*	360*	90*	10*	250*	160*
PET regrind mixed colours	480	560	720	820	600	440
Average Price	(803)	761	894	826	806	531

Table 2: Standard plastics price according to plasticker; listed 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 (may be amended by additional quotes)

3.2 plasticker: Technical plastics

For August 2022, there was an average price of 1,992 \in /t, which was 5 \in /t lower than that of the previous month (1,997 \in /t), see Table 3. The average prices remained roughly the same in July and August 2022. The average price for August 2022 (1,992 \in /t) was 423 \in /t above

that of the previous year (1,569 \in /t). The price index for August 2022 is characterised by subdued demand for plastic.

We see large price changes in individual commodities, which can be seen in price changes of more than \pm 70 \in /t: ABS regrind -310 \in /t, PBT regrind -140 \in /t, PBT regranulates +180 \in /t, PA 6 regrind +140 \in /t, PA 6 regranulates +110 \in /t, PA 6.6 regrind +210 \in /t and PA 6.6 regranulates -370 \in /t.

The probable average price in September 2022 (1,953 \in /t) is thus 39 \in /t lower than in the previous month (1,992 \in /t). The price index of 21.09.2022 shows low demand for plastic.

	Setember ⁶ 22	August 22	July 22	June 22	May 22	Aug. 22
ABS regrind	1000	960	1270	1450	1370*	630
ABS regranu- lates⁵	2090	2390	2340	2280	2660	2390
PC regrind	1250	1210	1190*	1110*	900*	1000
PC regranulates ⁵	2430	2700	2660	2680	2890	2130
PBT regrind	840	690	830*	980*	620*	560
PBT regranulates	2590	2510	2330	2350	2520	2440
PA 6 regrind	1190	1060	920*	1130	1060	970
PA 6 regranu- lates⁵	3040	3100	2990	2880	2710	2310
PA 6.6 regrind	1410	1410	1200*	980*	1010*	1040
PA 6.6 regranu- lates⁵	3490	3570	3940	3760	3870	2550
POM regrind	890	830	810*	1190*	1110*	650
POM regranu- lates ⁵	3210	3470	3480	3360	3560	2160
Average Price	(1953)	1992	1997	2013	2023	1569

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

*: Supply figure too low to attain statistical significance; ^{5.} equivalent to the grade "regranulates, black"; ^{6.} preview (may be amended by additional quotes)

4 Secondary plastics markets

The first plastics recyclers have had to conclude new electricity contracts because the old ones expire in 2023 or 2024; electricity prices have gone up by as much ten times. And gas prices are also a main cost factor for plastics recyclers in treating the waste plastics. Since there are few energy saving options for thermal reforming, the plastics recyclers are developing plans to go into longer maintenance breaks or to completely switch off machines for a time. Individual processing lines are already switched off in companies; this is one way to reduce the costs for shift workers. This can result in short-time working or even unemployment.

4.1 Plastic wastes - processing input

The demand for plastic wastes is subdued. The prices of all waste quotes are falling markedly, see EUWID price index and plasticker. The process input is piling up in plastics recyclers' stores. Once again, enough goods are available - the receiving warehouses are full.

For PE post user, the average price falls for bale goods range from 70 \in /t to 105 \in /t. And the price fall in the top quotes is always higher than the lower price bracket. For PE production wastes, the average price falls for bale goods are 63 \in /t and for PP production wastes 85 \in /t.

4.2 Recyclates

Plastics recyclers can hardly pass on the drastically higher costs for energy, transport and logistics in their intermediate and end products. 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.

Due to the state of the economy, the sales of processing output are stalling. 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 76 \in /t, PP regrinds by 95 \in /t, PS regrinds by 50 \in /t and PVC regrinds by 28 \in /t.

4.3 PET Recycling

There are sufficient quantities of both PET virgin grade and used PET bottles in the markets. In this hot summer, more used beverage bottles are readily available. And, as a result, the prices for used PET single-use bottles have fallen significantly in August: PET transparent - $80 \in /t$, PET mixed - $80 \in /t$ and PET coloured - $40 \in /t$. Detailed monthly reports on the PET prices for virgin grade and used bottles can be found in EUWID and KI Plastics Information Europe.

The strong supply of PET is suppressing the prices for virgin grade and recyclates. Whereas the price of virgin grade is quoted at around $1,700 \in /t$, they outdo the prices of clear flakes $2,050 \in /t$ and those of regranulates $2,450 \in /t$.

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 <u>www.euwid.de</u>, or in EUWID Plastics <u>www.euwid-recycling.de</u>. 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 <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. 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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