1 General economy and reference to the plastics industry

Plastics Europe Deutschland recently published the Report of the Plastics Industry in Germany for the second quarter of 2023, see https://plasticseurope.org/de/wp-content/uploads/sites/3/2023/09/Quartalsbericht-Q223-Plastics-Europe.pdf. The manufacture of plastics in primary forms fell by 5.9 % in comparison to the previous quarter. The previous year's level was missed by more than 20 %. The plastics processors' incoming orders fell in the second quarters, both from within Germany and from abroad. The producer prices for plastics in primary form fell from April to June. It was the third quarter in succession with a price fall; the price has now also fallen below previous year's level. The pressure on margins has thus risen further for many business owners. The reduced production and falling producer prices had a negative impact on the sector's turnover. Turnover of plastics in primary form fall sharply by 10.8 % in comparison to the previous quarter and amounted to around 6.7 billion Euro. Looking to the future, many plastics producers are still pessimistic. The world-wide weak demand will continue, no significant improvement is in sight. Germany as a place to do business must be supported now with a time-limited, internationally competitive interim electricity price so that it is still attractive in the future.

2 Primary markets - standard plastics

In August 2023 the EUWID average price of 1,345 €/t was slightly higher than in the previous month (1,327 €/t). The price drop for standard plastics has been stopped for the time being, see Tab. 2. In a year-on-year comparison, it can be seen that the average quotes from August 2023 (1,345 €/t) were 488 €/t lower than those of the previous year (1,833 €/t).

The quotes for PS plastics rose by an average 80 €/t and PVC fell by 10 €/t. The situation for standard plastics is portrayed well in EUWID, see www.euwid-recycling.de, and PIE – Plastic Information Europe, see https://pieweb.plasteurope.com/.

Prices in €/t	August 2023	July 2023	June 2023	May 2023	April 2023
LDPE film grade	1160- 1210	1160- 1210	1230- 1310	1370- 1470	1410- 1520
LLDPE film grade	1130- 1230	1130- 1230	1200- 1310	1300- 1430	1340- 1480
HDPE injection moulding	1170- 1220	1170- 1220	1210- 1290	1290- 1390	1300- 1410
HDPE blow mould-ing	1150- 1230	1150- 1230	1190- 1300	1270- 1400	1280- 1420
PS crystal clear	1640- 1720	1560- 1640	1640- 1720	1770- 1870	1720- 1850
PS high impact	1770- 1820	1690- 1740	1770- 1820	1900- 1970	1850- 1950
PP homopolymer	1330- 1420	1330- 1420	1360- 1520	1460- 1620	1470- 1640
PP copolymer	1380- 1470	1380- 1470	1430- 1570	1510- 1670	1520- 1690
PVC tube grade	1100- 1200	1110- 1210	1150- 1250	1310- 1410	1380- 1480
PVC film/cables	1230- 1330	1240- 1340	1280- 1380	1440- 1540	1500- 1600
Average Price	1345 ± 225	1337 ± 193	1397 ± 206	1520 ± 213	1541 ± 190

Table 2: Standard plastics prices according to EUWID over the past five months, listed in €/t.

PET: In spite of the summer, sun and heat, the PET markets remain unchanged, The demand for PET beverage bottled has hardly improved. The plastics manufacturers were able to pass on the higher costs for the precursor product paraxylene. Packaging PET was quoted at an average price of 1,180 €/t in August 2023, and thus 10 €/t higher than in the previous month, see PIE − Plastic Information Europe https://pieweb.plasteurope.com/.

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 September 2023; they will not become definitive until early October 2023. The two quotes stated for September 2023 below indicate only an interim situation, see the left-hand column in Table 3 and Table 4.

3.1 plasticker: Standard plastics

The standard plastics were quoted at an average 615 €/t in August 2023 and were thus 20 €/t lower than the average quote for July 2023 of 635 €/t, see Tab. 3. The average price for August 2023 (615 €/t) was 146 €/t below that of the previous year (761 €/t).

There were significant price changes of greater than ±40 €/t for: HDPE regranulates -70 €/t, LDPE regranulates -130 €/t, PP regrind -50 €/t, PP regranulates -100 €/t and PS regrind 170 €/t. Considerations of price changes with supply figures that are too low are not included here. The price index for August is characterised by subdued purchase demand.

The probable average price in September 2023 (588 €/t) is thus 27 €/t lower than in the previous month, see Tab. 3. The price index of 11.09.2023, shows subdued demand for plastic.

	Santambar ⁶ 23	August 22	July 22			
Table 3:	Standard plastics price according to plasticker; listed in €/t.					

	September ⁶ 23	August 23	July 23	June 23	May 23	August 22
HDPE regrind ¹	620	610	630	670	640	780
HDPE regranu- lates ⁵	840	870	940	880	1060	1080
LDPE bale goods ²	140	300	320	370*	300	290
LDPE regrind ¹	180	180	290*	180*	730*	500*
LDPE regranu- lates ⁵	700	760	890	800	910	910
PP bale goods ³	280	290	280	230*	220	230*
PP regrind ¹	580	650	700	740	740	750
PP regranulates ⁵	840	960	1060	1020	1030	1480
PS regrind⁴	950	960	790	710*	910*	750*
PS regranulates ⁵	1020	1070	1070	1130	1210	1640
PVC_P regrind ¹	840	530	500*	570*	680*	620*
PVC_U regrind ¹	580	670	660*	580*	500*	700*
PET bale goods	230	300	310	300*	310*	360*
PET regrind mixed colours	430	460	440	480	570	560
Average Price	(588)	615	635	619	701	761

^{*:} 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 2023, there was an average price of 1,916 \in /t, which was 104 \in /t higher than that of the previous month (1,812 \in /t), see Table 4. The average price for August 2023 (1,916 \in /t) was 76 \in /t below that of the previous year (1,992 \in /t). A turning point in the price levels was reached with the June quotes.

There were significant price changes of greater than ±70 €/t for: ABS regranulates -150 €/t, PBT regranulates +720 €/t, PA 6 regranulates +160 €/t and PA 6.6 regranulates +470 €/t. The price index for August is still characterised by adequate demand for plastic.

The probable average price in September 2023 (1,908 €/t) is thus almost identical to that of the previous month (1,916 €/t). The price index of 11.09.2023 shows adequate demand for plastic.

	September ⁶ 23	August 23	July 23	June 23	May 23	August 22
ABS regrind	820	850	820	870	910	960
ABS regranu- lates ⁵	1310	1360	1510	1570	1530	2390
PC regrind	1250	1290	1260	1210	1340	1210
PC regranulates ⁵	2600	2520	2480	2120	2480	2700
PBT regrind	680	740	770*	750*	750	690
PBT regranulates	3360	3260	2540	2200	2580	2510
PA 6 regrind	1170	1190	1180	1050*	1100*	1060
PA 6 regranu- lates ⁵	2640	2570	2410	2630	2890	3100
PA 6.6 regrind	1250	1280	1330	1390	1310	1410
PA 6.6 regranu- lates ⁵	3970	4070	3600	3570	3520	3570
POM regrind	770	760	730	760	850*	830
POM regranu- lates ⁵	3080	3100	3110	3010	2920	3470
Average Price	(1908)	1916	1812	1761	1848	1992

Table 4: Technical plastics price according to plasticker; listed in €/t.

4 Secondary plastics markets

4.1 Standard plastics and technical plastics

Standard plastics: Plastics recyclers no longer have any great hopes that the market situation will improve in 2023. There is still only low demand for plastic wastes from recyclers. The recyclers' warehouses are full, both in terms of processing input (plastic wastes) and output (recyclates). There is hardly any demand for recyclates from plastics processors. The prices for plastics wastes were largely stable in August. Only a few price corrections can be discerned. The prices of plastics recyclates are falling even further.

In July, EUWID reports only a few price changes for the quoted standard plastics. The price collapse is stopping. The price index from PIE − Plastic Information Europe matches EUWID well in terms of trends, i.e., the price falls and the low demand. Regranulates are quoted between 10 €/t and 60 €/t lower. PIE − Plastic Information Europe also reports on a slowing in the price falls. For some grades, the lowest price level may have been reached. We can also see falling prices in plasticker. The price collapse has also slowed down here. In summary, it

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

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

can be said that the pricing trough has been reached. However, no improvement in demand for secondary plastics can be seen yet.

Technical plastics: From the quotes in plasticker it can be concluded that the trough was reached in June 2023 (1,761 €/t). Since then, we have seen an improvement in prices and demand. However, we are still far away from a normalisation of the markets for Technical Plastics. In PIE – Plastic Information Europe, the regranulates prices fell by between 10 €/t and 75 €/t. As far as technical plastics are concerned, pieweb reported improved demand from motor manufacturing. Demand is described as surprisingly robust both by pieweb and plasticker.

4.2 PET Recycling

The markets for recycled PET are still in the discovery phase. The trough in the price collapse for recyclates may have been reached now. The oversupply of used drinks bottles continues. The processors' warehouses are full of used beverage bottled – overfull. And, as a result, the processing input is becoming even cheaper. The price levels for used bottles are now stabilising. In August the prices for used PET single-use bottles have fallen only slightly: The relative price changes in comparison to the previous month were: PET transparent - $20 \in /t$, PET mixed - $20 \in /t$ and PET coloured - $20 \in /t$.

And the outflow of recyclates continues to stagnate – as a consequence, the warehouses are well stocked with flakes and regranulates. The new price levels for regrinds (flakes) and regranulates are establishing themselves. The difference between clear recycled flakes and virgin grade is around 200 €/t to 250 €/t. Detailed monthly reports on the PET prices for virgin grade and used beverage bottles can be found in EUWID and PIE - 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. EUWID: No guarantee for any of the prices here; 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

A detailed discussion with information of price indices for virgin grades and waste plastics as well as precursor products can be found in PIE – Plastics Information Europe, see www.kiweb.de. For virgin grades, the indices for standard plastics (Plastixx ST) and technical plastics (Plastixx TT) provide a good overview of the price trends. Pieweb quotes the monthly regranulates prices for standard plastics and technical plastics in the secondary markets. For secondary plastics, there are also details on PET, in this case flakes (flakes transparent, flakes mixed colours) as well as transparent regranulates.