0 26th International Conference on Plastic Recycling, 11/12 June, Dresden

The 26th International Conference on Plastic Recycling will be held at the Maritim Hotel & International Congress Centre, Dresden on 11/12 June 2024. Our traditional barbecue in the Congress Centre near the Elbe is a special highlight. Information about the hotel and registration can be found at https://altkunststofftag.bvse.de/anmeldung.

The title of the Conference on Plastic Recycling is "Plastic Recycling is Climate Protection". The conference will be opened on 11 June with the Central Forum, which has two podium discussions in succession, one on our main subject and the other on "Steering Effects for Plastic Recycling". This will be followed by two workshops in parallel, namely on "Legislative Restructuring of Plastic Recycling" and the BKV workshop.

The traditional barbecue will be held at 7.00 pm, which often goes on until the early hours. In parallel to the conference, there are two exhibitions, one a forum on plastic recycling presenting machines, installations and services and the other a forum of recycled products you can touch.

On the second day of the event, 12 June 2024, the exhibitors will introduce themselves with brief presentations and a discussion. The workshop "Interdisciplinary Dialogue: Product Design Packagings" will be held in parallel. The conference will end at 12.30 with a snack for lunch.

1 General economy and reference to the plastics industry

One particular highlight in reporting on the plastics processing industry is the GKV press conference, held every year on Ash Wednesday, see https://www.gkv.de/de/service/presse/kunststoff-verarbeitende-industrie-fordert-wachstumsagenda.html. The surveys from 2023 not only enable conclusions to be drawn about the past year, but the trends for the current financial year also become clear. Here is just some of the data from the many tables and diagrams: domestic turnover in the plastics processing industry was € 42.3 billion; it has fallen by 9.4 %. The amount of plastic processed was 12.7 million tonnes; this corresponds to a fall of 9 %. Tab. 1 contains the quantity and turnover of the plastics processing industry. The data on plastic recycling is of particular interest. Of the companies questioned, 48 % stated that the use of recycled material had risen, 50 % had unchanged quantities. For 2024, 52 % of those surveyed want to use more recyclates and for 37 % the amount will remain the same.

Table 1: Quantity and turnover of the plastics processing industry for 2022 and 2023 from the GKV survey of 14.02.2024.

KVI nach Branchen	Menge in Mio. T		Umsatz in Mrd. €				
	2022	2023	2021	2022	2023	Veränderung	
Kunststoffverarbeitung gesamt	13,9	12,7	70,01	77,11	72,50	- 5,98 %	
Davon:							
- Verpackung	4,2	3,8	16,38	18,20	16,80	- 7,70 %	
- Bau	5,1	4,7	23,80	26,26	23,88	- 9,06 %	
- Technische Teile	2,9	2,9	18,79	20,59	20,94	+ 1,70 %	
- Konsumprodukte	1,4	1,3	11,04	12,06	10,88	- 9,77 %	

2 Primary markets - standard plastics

The marked price rises in the February price index were surprising. Possible supply bottlenecks and occasional tight inventory levels led to advance purchases in February and March. Or, to put it another way, increased demand is facing low supply. Moreover, the price of crude oil is rising greatly; on 20.03.2024 Tecson listed \$86.10 per barrel, see https://www.tecson.de/oelweltmarkt.html. And this will have a direct impact on the precursor product prices, which will rise further in February and March. And the precursor products in turn will have a great influence on the plastic prices.

This means that the price rises identified are understandable. However, there are only a few genuine market impetuses from the plastics processing industry bringing about increased demand.

In February 2024, the EUWID average price of 1,428 €/t was therefore 85 €/t higher than in the previous month (1,343 €/t), see Tab. 2. In a year-on-year comparison, it can be seen that the average quotes from February 2024 (1,428 €/t) were 150 €/t lower than those of the previous year (1,578 €/t).

The plastic quotes changed on average as follows: LDPE by +125 €/t, LLDPE by +125 €/t, HDPE by +110 €/t, PP by +50 €/t and PS by -120 €/t. The price of PVC is unchanged. The current market 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	Feb. 2024	Jan. 2024	Dec. 2023	Nov. 2023	Oct. 2023
LDPE film grade	1310- 1390	1210- 1240	1200- 1220	1230- 1260	1280- 1310
LLDPE film grade	1300- 1370	1200- 1250	1190- 1230	1230- 1270	1280- 1320
HDPE injection moulding	1300- 1360	1200- 1240	1190- 1240	1230- 1280	1280- 1330
HDPE blow moulding	1290- 1370	1190- 1250	1180- 1250	1210- 1290	1260- 1340
PS crystal clear	1750- 1830	1600- 1680	1600- 1680	1720- 1800	1870- 1950
PS high impact	1880- 1930	1730- 1780	1730- 1780	1850- 1900	2000- 2050
PP homopolymer	1380- 1460	1330- 1410	1330- 1390	1370- 1430	1420- 1480
PP copolymer	1430- 1510	1380- 1460	1380- 1440	1420- 1480	1470- 1530
PVC tube grade	1060- 1160	1060- 1160	1080- 1180	1110- 1210	1150- 1250
PVC film/cables	1190- 1290	1190- 1290	1210- 1310	1240- 1340	1280- 1380
Average Price	1428 ± 240	1343 ± 205	1341 ± 204	1394 ± 236	1462 ± 276

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

PET: In the case of PET, adequate supply continues to face weak demand. Imports from the Far East are balancing out short-term surges in demand. Price rises for the precursor products, in this case for paraxylol, have not yet had an impact on the plastic price.

As opposed to the above-mentioned price rises, the quotes for PET fell in February. In February 2024 packaging PET was quoted on average at 1,250 €/t, see . And the price of PET has therefore fallen by 25 €/t in comparison with the previous month, see PIE – Plastic Information Europehttps://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 March 2024; they will not become definitive until early April 2024. The two quotes stated for March 2023 below indicate only an interim situation, see the left-hand column in Tab. 3 and Table 4.

3.1 plasticker: Standard plastics

In February 2024, standard plastics were quoted at an average price of $589 \ \text{€/t}$ and is thus $10 \ \text{€/t}$ higher than in the previous month $(579 \ \text{€/t})$, see Tab. 3. The average price for February 2024 $(589 \ \text{€/t})$ was $151 \ \text{€/t}$ below that of the previous year $(740 \ \text{€/t})$. There were significant price changes of greater than $\pm 40 \ \text{€/t}$ for: LDPE regranulates at $-80 \ \text{€/t}$ and PS regranulates at $+70 \ \text{€/t}$. The February price index is characterised by continued subdued demand for plastic.

The probable average price in March 2024 (633 €/t) is therefore 44 €/t higher than the previous month, see Tab. 3. The price index of 11.03.2024 is characterised by a slightly improved demand for plastic in comparison to the previous month.

	March ⁶ 24	Feb. 24	Jan. 24	Dec. 23	Nov. 23	Feb. 23
HDPE regrind ¹	620	570	580	580	580	750
HDPE regranulates⁵	950	860	840	870	880	1030
LDPE bale goods ²	400*	260*	230*	230*	160*	400*
LDPE regrind ¹	560*	550*	560*	410*	360*	470
LDPE regranulates ⁵	780	730	810	860	800	890
PP bale goods ³	320	210	230	230	200*	400*
PP regrind ¹	630	620	600	580	600	760
PP regranulates⁵	900	840	830	830	850	1170
PS regrind⁴	730	770	740	700	680	810*
PS regranulates ⁵	960	900	830	980	1000	1170
PVC_P regrind ¹	490*	630	610	640*	660*	830*
PVC_U regrind ¹	570	620	610	550	550	640*
PET bale goods	410*	260	260*	200*	190*	340*
PET regrind mixed colours	540	420	380	410	450	700
Average Price	(633)	589	579	576	569	740

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

3.2 plasticker: Technical plastics

For February 2024, there was an average price of 1,572 €/t, which was 46 €/t lower than that of the previous month (1,616 €/t), see Table 4. The average price for February 2024 (1,572 €/t) was as much as 586 €/t lower than that of the previous year (2,158 €/t).

There were significant price changes of greater than ±70 €/t for: ABS regranulates +110 €/t, PC regranulates -240 €/t, PA 6.6 regrind -100 €/t, PA 6.6 regranulates -80 €/t and POM regranulates -100 €/t. The February price index is characterised by slightly higher demand for plastic in comparison to the previous month.

The probable average price in March 2024 (1,689 €/t) is thus 117 €/t higher than in the previous month (1,572 €/t). The price index of 11.03.2024 shows subdued demand for plastic.

^{*:} 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)

	January ⁶ 24	Feb. 24	Jan. 24	Dec. 23	Nov. 23	Feb. 23
ABS regrind	790	750	800	740	670	1100
ABS regranulates ⁵	1540	1340	1230	1370	1350	1990
PC regrind	1260	1220	1250	1120	1210	1410
PC regranulates ⁵	2240	1980	2220	2370	2190	3320
PBT regrind	700	670	660*	620	660	1000
PBT regranulates	2530	2270	2330	2220	2450	3400
PA 6 regrind	930	910	940	960	970	1010
PA 6 regranulates ⁵	2480	2360	2340	2460	2340	3140
PA 6.6 regrind	980	880	980	1030	1130	1380
PA 6.6 regranu-	3250	3080	3160	3260	3130	3890
lates ⁵						
POM regrind	820	680*	680*	690	690	990
POM regranulates ⁵	2850	2720	2820	2870	2740	3270
Average Price	(1698)	1572	1618	1643	1628	2158

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

4 Secondary plastics markets

There are ever more indications that bogus recyclates from the Far East are being imported into Europe. Bogus recyclates means low-quality virgin grades that are declared to be recyclates. It is particularly annoying that the export of plastic wastes and secondary plastics to countries outside the EU has been made much more difficult, but European plastic recyclers remain unprotected from imports. see https://euric.org/images/Press-releases/Statements/Joint_Statement_EuRIC_FEAD_-PPWR_Mirroring_Clause.pdf.

4.1 Recycling standard plastics

And there are still no real market impetuses. The secondary plastics market continued to be weak in February. Although demand has increased in some area, recyclers have full warehouses that can be used to service the demand. That is why recyclers were not manufacturing at full capacity in February and March.

The price rises for virgin grades are also influencing the prices for secondary plastics. Whereas the price rises for virgin grades were marked, they are more subdued for secondary plastics. In the EU-WID price index for waste plastics in Germany, bale goods, in this case PE films and PP films, average prices rises of between 10 €/t and 30 €/t were effective. The structural shortage of films is clear in the price rises. The prices in plasticker and in EUWID show the same trend.

EUWID also quotes regrinds, see <u>www.euwid-recycling.de</u>. In February 2024, higher prices were listed for PE, PP and PS regrinds. In the case of PE and PS regrinds, there are mainly unilateral prices rises of 10 €/t each. PVC regrinds were quoted at unchanged prices.

PIE – Plastic Information Europe lists prices for regranulates. And these quotes for regranulates are uneven, see https://pieweb.plasteurope.com/. The average price rises are in the range of 5 €/t to 63 €/t.

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

4.2 Recycling technical plastics

Although the price fall in plasticker is not constant and is sometimes only in small stages, it is still obvious. The average price for February 2024 (1,572 €/t) was 46 €/t lower than that of the previous year (1,618 €/t). The demand for technical plastics improved slightly in March.

In PIE – Plastic Information Europe, too, the regranulates prices fell slightly in February 2024, see https://pieweb.plasteurope.com/. However, the quotes for some compounds were unchanged. The average price falls were between 10 €/t and 40 €/t, depending on the compound. Weak demand is leading to further price falls.

4.3 PET recycling

There are now signs of a real upturn in demand for PET. Demand is strong for flakes in particular. The slightly higher consumption of drinks at the start of spring has been identified as responsible for the upturn. There is much stronger demand for rPET again thanks to the use of flakes for preform manufacturing. After the amount of rPET in beverage bottles has been falling for a long time, the amount is rising again. Preform manufacturers are now aware of their statutory duties for 2025 arising from the SUPD.

It is surprising that what is still a moderate rise in demand has had such a clear impact on the prices of used beverage bottles. Due to the demand for PET recyclates, the price of the processing input has risen, i.e., for used PET single-use deposit bottles. The relative price changes in February 2024 were: PET transparent +35 €/t, PET mixed +25 €/t and PET coloured +10 €/t, see EUWID.

The difference between transparent recycling flakes and virgin grade is stated as an average 150 €/t by EUWID and an average 285 €/t by PIE – Plastic Information Europe. Regranulates are still quoted as more expensive than virgin grade; in EUWID by 250 €/t and in PIE – Plastic Information Europe by 210 €/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.

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