### 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. Information about the hotel and registration can be found at <u>https://altkunststofftag.bvse.de/anmeldung</u>.

Five event blocks invite you to find out about current issues. The event is also enhanced by the exhibitors' forum and the product forum. And, finally, the special highlight is our traditional BBQ in the Congress Centre near the Elbe.

Two days of plastics recycling to be heard, seen and touched. And plenty of time for networking: it's worth going to Dresden!

#### 1 General economy and reference to the plastics industry

In mid-March 2024, PlasticsEurope Deutschland reported on the 2023 financial year, see <u>https://plasticseurope.org/de/2024/03/14/kunststoffproduktion-durchlaeuft-tiefes-tal-doch-es-gibt-hoffnung/</u>. The report is titled "Plastics Production in Deep Slump: But there is Hope".

In the past 2023 financial year, the plastics manufacturing industry in Germany was struggling with markedly falling production for the second time in succession. High production costs due to rising labour costs and very high energy prices affected the sector in international competition. In the last year, turnover fell by 21.9 %. Demand for plastics fell by 16 % in Germany in 2023. A rapid recovery is not expected in 2024.

"German plastics manufacture is currently going through a deep slump. But we are continuing along our path to the circular economy regardless, in spite of the difficult market conditions. The German and European plastics industry currently has a technological lead in comparison to other regions of the world, which must be preserved and expanded. For example, in the production of plastics from non-fossil raw materials. That's why it's important for investments to be made in innovative technologies, such as the expansion of mechanical and chemical recycling methods and alternative sources of hydrocarbons," said Ingemar Bühler, CEO of PlasticsEurope Deutschland e.V.

#### 2 Primary markets - standard plastics

The marked price rises in the March price index were surprising. Although the plastics processing industry recorded stronger demand than in previous months in some segments, the market impetus is still lacking in other areas. The shortages that the manufacturers are feeling on the supply side are taking effect. Moreover, the price of crude oil is still rising greatly; on 11.04.2024 Tecson listed \$ 89.40 per barrel, see <u>https://www.tecson.de/oelweltmarkt.html</u>. And this then has a direct impact on the precursor product prices, which continued to rise in March and April.

In March 2024, the EUWID average price of 1,500  $\leq$ /t was therefore 72  $\leq$ /t higher than in the previous month (1,428  $\leq$ /t), see Tab. 2. In a year-on-year comparison, it can be seen that the average quotes from March 2024 (1,500  $\leq$ /t) were only 69  $\leq$ /t lower than those of the previous year (1,569  $\leq$ /t).

The plastic quotes changed on average as follows: LDPE by +40  $\notin$ /t, LLDPE by +40  $\notin$ /t, HDPE by +50  $\notin$ /t, PP by +60  $\notin$ /t, PS by +200  $\notin$ /t and PVC by +10  $\notin$ /t. The current market situation for standard plastics is portrayed well in EUWID, see <u>www.euwid-recycling.de</u>, and PIE – Plastic Information Europe, see <u>https://pieweb.plasteurope.com/</u>.

Prices in €/t	March 2024	Feb. 2024	Jan. 2024	Dec. 2023	Nov. 2023
LDPE film grade	1340- 1440	1310- 1390	1210- 1240	1200- 1220	1230- 1260
LLDPE film grade	1330- 1420	1300- 1370	1200- 1250	1190- 1230	1230- 1270
HDPE injection moulding	1350- 1410	1300- 1360	1200- 1240	1190- 1240	1230- 1280
HDPE blow moulding	1340- 1420	1290- 1370	1190- 1250	1180- 1250	1210- 1290
PS crystal clear	1950- 2030	1750- 1830	1600- 1680	1600- 1680	1720- 1800
PS high impact	2080- 2130	1880- 1930	1730- 1780	1730- 1780	1850- 1900
PP homopolymer	1430- 1530	1380- 1460	1330- 1410	1330- 1390	1370- 1430
PP copolymer	1480- 1580	1430- 1510	1380- 1460	1380- 1440	1420- 1480
PVC tube grade	1070- 1170	1060- 1160	1060- 1160	1080- 1180	1110- 1210
PVC film/cables	1200- 1300	1190- 1290	1190- 1290	1210- 1310	1240- 1340
Average Price	1500 ± 306	1428 ± 240	1343 ± 205	1341 ± 204	1394 ± 236

Table 2:	Standard plastics prices according to EUWID over the past five months, listed in €/t.
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PET: the markets are unclear and show rapid changes. The long sea routes around Africa are still in use for imports to Europe. And this can impair PET availability. Demand from processors continues to be relatively subdued. And demand from private and commercial users for packaging PET also continues to be low. The PET supply in Europe can easily satisfy the rather low demand. Demand could be stimulated by higher beverage consumption in the spring.

In March 2024 packaging PET was quoted on average at 1,285 €/t. And PET has therefore risen by 35 €/t in comparison with the previous month, see PIE – Plastic Information Europe<u>https://pieweb.-plasteurope.com/</u>. The quotes in EUWID are quoted on average 1,250 €/t for European films and bottle grade (A-PET and C-PET), see <u>www.euwid-recycling.de</u>.

## 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 April 2024; they will not become definitive until early May 2024. The two quotes stated for April 2024 below only an interim situation, see the left-hand column in Table 3 and Table 4.

## 3.1 plasticker: Standard plastics

In March 2024, standard plastics were quoted at an average price of  $618 \notin t$  and is thus  $29 \notin t$  higher than in the previous month ( $589 \notin t$ ), see Tab. 3. The average price for March 2024 ( $618 \notin t$ ) was 72  $\notin t$  below that of the previous year ( $690 \notin t$ ). There were significant price changes of greater than  $\pm 40 \notin t$  for: HDPE regrind  $\pm 50 \notin t$ , HDPE regranulates  $\pm 100 \notin t$ , LDPE bale goods  $\pm 130 \notin t$ , PP bale goods  $\pm 100 \notin t$ , PP regranulates  $\pm 60 \notin t$ , PS regrind  $\pm 60 \notin t$ , PVC\_P regrind  $\pm 210 \notin t$ , PVC\_U regrind  $\pm 140 \notin t$ , PET bale goods  $\pm 120 \notin t$  and PET regrind  $\pm 130 \notin t$ . The March price index is characterised by a slightly improved demand for plastic in comparison to the previous month.

The probable average price in April 2024 (588  $\in$ /t) is thus 30  $\in$ /t lower than in the previous month, see Tab. 3. The price index of 15.04.2024 is characterised by a slightly improved demand for plastic in comparison to the previous month.

	April <sup>6</sup> 24	March 24	Feb. 24	Jan. 24	Dec. 23	March 23
HDPE regrind <sup>1</sup>	600	620	570	580	580	730
HDPE regranulates <sup>5</sup>	970	960	860	840	870	1020
LDPE bale goods <sup>2</sup>	270*	390	260*	230*	230*	200*
LDPE regrind <sup>1</sup>	420	570*	550*	560*	410*	390*
LDPE regranulates <sup>5</sup>	870	810	730	810	860	900
PP bale goods <sup>3</sup>	230	310	210	230	230	320*
PP regrind <sup>1</sup>	640	660	620	600	580	740
PP regranulates <sup>5</sup>	910	900	840	830	830	1050
PS regrind <sup>₄</sup>	770	710	770	740	700	780*
PS regranulates <sup>5</sup>	830	890	900	830	980	1220
PVC_P regrind <sup>1</sup>	-	420*	630	610	640*	800*
PVC_U regrind <sup>1</sup>	470*	480	620	610	550	740*
PET bale goods	310*	380*	260	260*	200*	220*
PET regrind mixed colours	360	550	420	380	410	550
Average Price	(588)	618	589	579	576	690

Table 3: Standard plastics price according to plasticker; listed in  $\notin/t$ .

\*: Supply figure too low to attain statistical significance; <sup>1</sup>: equivalent to the grade "post-industrial mixed colours"; <sup>2</sup>: equivalent to K49; <sup>3</sup>: equivalent to K59; <sup>4</sup>: equivalent to "standard, mixed colours"; <sup>5</sup>: equivalent to the grade "regranulates, black"; <sup>6</sup>: preview (may be amended by additional quotes)

#### 3.2 plasticker: Technical plastics

For March 2024, there was an average price of  $1,626 \notin t$ , which was  $54 \notin t$  higher than that of the previous month ( $1,572 \notin t$ ), see Table 4. The average price for March 2024 ( $1,626 \notin t$ ) was  $390 \notin t$  below that of the previous year ( $2,016 \notin t$ ).

There were significant price changes of greater than  $\pm 70 \notin t$  for: ABS regranulates  $\pm 120 \notin t$ , PC regranulates  $\pm 120 \notin t$ , PA 6.6 regrind  $\pm 150 \notin t$  and PA 6.6 regranulates  $\pm 180 \notin t$ . The March price index is characterised by subdued demand for plastic in comparison to the previous month.

The probable average price in April 2024 (1,561  $\in$ /t) is thus 65  $\in$ /t lower than in the previous month (1,626  $\in$ /t). The price index of 15.04.2024 shows subdued demand for plastic.

	April <sup>6</sup> 24	March 24	Feb. 24	Jan. 24	Dec. 23	March 23
ABS regrind	710	750	750	800	740	1040
ABS regranulates <sup>5</sup>	1360	1460	1340	1230	1370	1780
PC regrind	1140	1250	1220	1250	1120	1320
PC regranulates <sup>5</sup>	2070	2170	1980	2220	2370	2980
PBT regrind	820	790	670	660*	620	860*
PBT regranulates	2040	2310	2270	2330	2220	3290
PA 6 regrind	680	930	910	940	960	960
PA 6 regranulates <sup>5</sup>	2360	2380	2360	2340	2460	2930
PA 6.6 regrind	1050	1030	880	980	1030	1350
PA 6.6 regranu- lates⁵	2900	2900	3080	3160	3260	3780
POM regrind	840*	860	680*	680*	690	970*
POM regranulates <sup>5</sup>	2760	2680	2720	2820	2870	2930
Average Price	(1561)	1626	1572	1618	1643	2016

Table 4: Technical plastics price according to plasticker; listed in  $\epsilon/t$ .

\*: Supply figure too low to attain statistical significance; <sup>5.</sup> equivalent to the grade "regranulates, black"; <sup>6.</sup> preview (may be amended by additional quotes)

### 4 Secondary plastics markets

The mood in recycling standard plastics is still subdued. There are still no real market impulses. Overall, a slight improvement in the market situation for plastic recycling can be discerned. In March and April recyclers are not manufacturing at full capacity.

### 4.1 Recycling standard plastics

Waste plastics: To date, the price rises for virgin grades have hardly had any impact on the prices for secondary plastics. The March price index for waste plastics in Germany in EUWID is showing stagnation, see <u>www.euwid-recycling.de</u>. Slight price rises can be seen for just a few grades.

EUWID, bale goods – film: The price rises for film are due to the structural shortage. Or, to put it another way, there is a film shortage because private and commercial demand for goods is sluggish. The bale goods of PE films from production wastes recorded an average rise of only  $5 \notin/t$ ; these are LDPE film coloured (K49) at  $35 \notin/t - 80 \notin/t$  and LDPE film natural (K40) at  $310 \notin/t - 360 \notin/t$ . PE films post user recorded price rises of an average  $5 \notin/t$  to  $20 \notin/t$ .

Recyclates: Particularly in the case of the sometimes more difficult supply of virgin grade to plastics markets, processors now appreciate the supplement to the market from recyclates. However, the mood among processors can change quickly when enough virgin grade is available cheaply again.

EUWID, regrinds: The demand for regrinds has improvement somewhat in some areas. But recyclers have full warehouses that can be used to service the demand. In the EUWID price index for March, the prices for regrinds are stagnating. Here, the average quotes for regrinds from coloured production wastes are 10  $\notin$ /t higher; these are HDPE coloured 280  $\notin$ /t – 400  $\notin$ /t and LDPE coloured 270  $\notin$ /t - 400  $\notin$ /t. The quotes for PVC and PS regrinds are completely unchanged.

PIE – Plastic Information Europe, regranulates: Quotes for regranulates are higher, see <u>https://pieweb.plasteurope.com/</u>. This is where the prices rises from the virgin grade take effect. Because of the price rises for virgin grades, the willingness of plastics processors to use recyclates rises. The average price rises are on average  $5 \notin t$  to  $45 \notin t$ .

### 4.2 Recycling technical plastics

Due to the continuing weak economy, there is still insufficient demand for technical plastics - neither as virgin grade nor as a recyclate. There are no real market impulses here. Even price rises in the precursor products lead to only subdued prices increases in virgin grade.

PIE – Plastic Information Europe, regranulates: In PIE – Plastic Information Europe, too, the regranulates were quoted inconsistently in March 2024, see <u>https://pieweb.plasteurope.com/</u>. For some PA compounds we can see unchanged prices, for some there are price rises and, yet again, for others price falls.

### 4.3 PET recycling

The markets for PET recyclates are currently developing differently from those in the primary markets. Positive impulses can still be seen for recyclates. The demand for rPET is strong among pro-

cessors. Flakes, in particular, are in demand. All preform manufacturers are now aware of their statutory duties for 2025 arising from the SUPD. There's not much time left for converting the plants, especially since the summer season is starting earlier than in previous years. Moreover, the processors must secure a stable supply of rPET of the requisite quality in plenty of time. Or, to put it another way, the days of delisting rPET are over once and for all.

For PET recyclers, although there is sufficient input of beverage bottle in Europe, the processing input is becoming more expensive because of the higher demand for PET recyclates. In March 2024, the relevant price changes for used PET single-use deposit bottles are: PET transparent +35  $\notin$ /t, PET mixed +35  $\notin$ /t and PET coloured +15  $\notin$ /t, see EUWID.

The difference between transparent recycling flakes and virgin grade is stated as an average  $120 \notin/t$  by EUWID and an average  $230 \notin/t$  by PIE – Plastic Information Europe. Food-safe regranulates are still quoted as more expensive than virgin grade; in EUWID by  $150 \notin/t$  and in PIE – Plastic Information Europe by around  $210 \notin/t$ . 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 <u>www.euwid.de</u>. 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 <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

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 <u>www.kiweb.de</u>. 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 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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