#### 1 25th International Conference on Plastic Recycling, Dresden

The 25th International Conference on Plastic Recycling will be held at the Maritim Hotel & International Congress Centre, Dresden on 6/7 June 2023. Our traditional barbecue is a special highlight - this time in the Congress Centre near the Elbe. Information about the hotel and registration can be found at <u>https://altkunststofftag.bvse.de/anmeldung</u>.

The heading for the Conference on Plastic Recycling is "Plastic Recycling in Trouble". The conference will be opened on 6 June with the Central Forum, which has two podium discussions in succession, one on quantities, markets and prices and the other on the revision of the European Packaging Directive. This will be followed by two workshops in parallel, namely on "New Impetus for 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, equipment and services and the other a forum of recycled products you can touch.

On the second day of the event, 7 June 2023, after 9.30 am you can either take part in the meeting of the Working Group on International Plastic Markets on "International Waste Shipping" or attend the workshop "Interdisciplinary Dialogue: Product Design Packagings".

#### 2 The general economy

Now it is not only the political situation that is restless; the banking crisis is also spreading. Inflation and recession are bothering companies. For the companies, this means high interest rates and hesitant bank lending. The banking crisis is also threatening for companies because it make an already tense situation even more difficult.

And here is the report on the GKV annual press conference on Ash Wednesday, 22 February 2023, see <u>https://www.gkv.de/de/service/presse/kunststoff-verarbeitende-industrie-besorgt-ueber-ertragslage-und-hohe-energiekosten.html</u>, which has the title "The Plastics Processing Industry - Concerned about Incomes and High Energy Costs".

On the occasion of its annual press conference in Frankfurt am Main, the plastics processing industry association (Gesamtverband Kunststoffverarbeitende Industrie e.V. (GKV)) took stock of developments in the industry over the last year. In 2022, the plastics processing industry in Germany increased its revenue by more than 78 billion euros. In spite of further increased revenues, many companies in the sector were worried about falling incomes because the rising costs of many companies can only be passed on to customers to a limited extent or not at all.

In the view of the GKV, the price brakes for electricity and gas adopted in December 2022 do not help many SMEs. "If the cost situation doesn't improve in 2023, consequences are inevitable," GKV President Fürst continued. These include job losses, short-time working or moving production abroad. The shortage of skilled workers and uncertainty about future legal general conditions continue to affect the economic development of the sector.

#### 3 Primary markets - standard plastics

The February price index for standard plastics is hard to assess. Minor price corrections and often only one-sided changes can be seen in the price indices for virgin grades. February can be classed as a pit stop in the price fall. The processors' warehouses are emptying. But demand for plastics is still subdued.

In February 2023 the EUWID average price of 1,578 €/t was an average of only 9 €/t higher than in the previous month (1,569 €/t), see Table 1. In a year-on-year comparison, it can be

seen that the average quotes from February 2023 (1,578  $\in$ /t) were as much as 347  $\in$ /t lower than those of the previous year (1,925  $\in$ /t), see EUWID, <u>www.euwid-recycling.de</u>. The quotes for plastics changed on average by +20  $\in$ /t for LDPE, +25  $\in$ /t for LLDPE, +20  $\in$ /t for HDPE, +40  $\in$ /t for PP, -13  $\in$ /t for PS and -25  $\in$ /t for PVC.

Prices in €/t	Feb. 2023	Jan. 2023	Dec. 2022	Nov. 2022	Oct. 2022
LDPE film grade	1450- 1570	1440- 1540	1540- 1640	1570- 1670	1550- 1650
LLDPE film grade	1350- 1520	1300- 1520	1400- 1620	1450- 1650	1450- 1650
HDPE injection moulding	1320- 1450	1320- 1420	1420- 1520	1450- 1550	1450- 1550
HDPE blow mould- ing	1300- 1460	1280- 1430	1380- 1530	1400- 1550	1400- 1550
PS crystal clear	1800- 1900	1850- 1900	1750- 1800	1850- 1900	1850- 1950
PS high impact	1900- 2000	1900- 2000	1800- 1900	1900- 2000	1900- 2050
PP homopolymer	1500- 1680	1500- 1600	1600- 1700	1630- 1760	1630- 1780
PP copolymer	1550- 1730	1550- 1650	1650- 1750	1680- 1810	1680- 1830
PVC tube grade	1410- 1510	1460- 1510	1510- 1610	1580- 1680	1630- 1730
PVC film/cables	1530- 1630	1580- 1630	1630- 1730	1700- 1800	1750- 1850
Average Price	1578 ± 200	1569 ± 205	1624 ± 141	1679 ± 164	1694 ± 177

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

PET: Demand for packaging PET is still low and supply high. Affordable prices for the precursor product PX - paraxylol and large import quantities result in even more falling prices. Packaging PET was quoted at an average price of 1,300 €/t in February 2023, and thus 70 €/t lower than in the previous month. The current PET quotes refer to the information from EUWID <u>www.euwid-recycling.de</u> and from PIE – Plastics Information Europe<u>https://pieweb.plasteurope.com/</u>.

#### 4 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 March 2023; they will not become definitive until early April 2023. Hence the two quotes stated for March 2023 below indicate only an interim situation, see the left-hand column in Tab. 2 and Table 3.

#### 4.1 plasticker: Standard plastics

Standard plastics were quoted at an average 740  $\in$ /t in February 2023 and were thus 11  $\in$ /t higher than the average quote for January 2023 of 729  $\in$ /t, see Tab. 2. And this is a sign of price stability if we look at the quotes from November 2022 to February 2023. The average price for February 2023 (740  $\in$ /t) was 156  $\in$ /t above that of the previous year (584  $\in$ /t).

There were significant price changes of greater than  $\pm 40 \notin /t$  for: PP regranulates  $\pm 100 \notin /t$  and PET regrind mixed colours  $\pm 90 \notin /t$ . Considerations of price changes with supply figures that are too low are not included here. The price index for February is characterised by adequate demand for plastic.

The probable average price in March 2023 (709  $\in$ /t) is thus 31  $\in$ /t lower than in the previous month (740  $\in$ /t), see Tab. 2. The price index of 20.03.2023, shows adequate demand for plastic.

	March <sup>6</sup>	Feb. 23	January 23	Dec. 22	Nov. 22	Feb. 22
HDPE regrind <sup>1</sup>	750	750	760	650	720	590
HDPE regranu- lates⁵	1040	1030	1020	1020	960	950
LDPE bale goods <sup>2</sup>	230*	400*	270*	440*	310	120*
LDPE regrind <sup>1</sup>	440*	470	480*	490*	520*	430*
LDPE regranu- lates⁵	910	890	850	890	940	820
PP bale goods <sup>3</sup>	340*	400*	510*	480	380	250*
PP regrind <sup>1</sup>	740	760	780	770	840	530
PP regranulates <sup>5</sup>	1050	1170	1070	1190	1090	970
PS regrind <sup>4</sup>	780*	810*	690*	800*	870*	610
PS regranulates <sup>5</sup>	1160	1170	1210*	1230	1220	1040
PVC_P regrind <sup>1</sup>	810*	830*	850*	440*	860*	660*
PVC_U regrind <sup>1</sup>	790*	640*	640*	520*	730*	500*
PET bale goods	320*	340*	470*	410*	400	360*
PET regrind mixed colours	970	700	610	700	550	350
Average Price	(709)	740	729	716	742	584

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

#### 4.2 plasticker: Technical plastics

For February 2023, there was an average price of 2,158  $\in$ /t, which was 95  $\in$ /t higher than that of the previous month (2,063  $\in$ /t), see Table 3. We have reached a clear high point with the February quotes. The average price for February 2023 (2,158  $\in$ /t) was 435  $\in$ /t above that of the previous year (1,723  $\in$ /t).

Marked price changes can be seen in the individual commodities. There were significant price changes of greater than  $\pm 70 \notin /t$  for: ABS regrind  $\pm 80 \notin /t$ , ABS regranulates  $\pm 180 \notin /t$ , PC regranulates  $\pm 610 \notin /t$ , PBT regranulates  $160 \notin /t$ , PA 6 regrind  $\pm 110 \notin /t$ , PA 6.6 regranulates  $\pm 120 \notin /t$  and POM regranulates  $\pm 340 \notin /t$ . PC regranulates and PA regranulates are at an absolute high in the price indices. PBT regrind has also reached its highest ever level. The price index for February 2023 is characterised by satisfactory demand for plastic.

The probable average price in March 2023  $(2,037 \in t)$  is thus  $121 \in t$  lower than in the previous month  $(2,158 \in t)$ . The price index of 24.03.2023 shows subdued demand for plastic.

	March <sup>6</sup> 23	Feb. 23	January 23	Dec. 22	Nov. 22	Feb. 22
ABS regrind	1040	1100	1020	850	840	810
ABS regranu- lates⁵	1780	1990	1810	1730	1820	1980
PC regrind	1360	1410	1480	1360*	1310*	1080
PC regranulates <sup>5</sup>	2980	3320	2710	2510	2820	2640
PBT regrind	850	1000*	900*	680*	700*	590
PBT regranulates	3390	3400	3560	2290*	2310	2330
PA 6 regrind	1010	1010	1120*	1050*	1070	930
PA 6 regranu-	2980	3140	3090	3070	3020	2450

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

lates <sup>5</sup>						
PA 6.6 regrind	1350	1380	1370*	1350*	1180*	960
PA 6.6 regranu- lates <sup>5</sup>	3770	3890	3770	3790	3760	2810
POM regrind	990	990*	990*	740*	860	760
POM regranu- lates⁵	2940	3270	2930	2290	2790	3340
Average Price	(2037)	2158	2063	1809	1873	1723

\*: 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)

#### 5 Secondary plastics markets

Plastic recycling is still in a very difficult situation because there is very cheap virgin grade on the market and this is causing low demand from the plastics processors. However, the low demand is due to the low inclination to purchase on the part of industrial and private consumers. Furthermore, energy costs are high and the cost of waste incineration low. And to cap it all, we have high inflation. The situation on the secondary markets remains very calm. Plastics recyclers are increasing production only very slowly and the facilities are often only running on part load.

EUWID reported price falls for waste plastics. Only a few commodities are quoted with unchanged prices. The pricing stated in Plastics Information Europe, EUWID and plasticker is an orientation guide, but the actual prices achieved may be very different.

Standard plastics: in February, EUWID reports marked price falls with only low demand; the quotes in plasticker, by contrast, show price stability with adequate demand. The market behaviour in EUWID shows the situation for standard plastics, whereas quotes virgin, grade, plastic wastes and recyclates. PIE – Plastics Information Europe, which mainly quotes regranulates, reports an overall trend of falling prices. However, some regranulates of PP and PS are also quoted somewhat higher.

Technical plastics: There is a very differentiated market for technical plastics, depending on the type of plastic. Whereas plasticker reports clear price increases for technical plastics with satisfactory demand, PIE – Plastics Information Europe reports the opposite. This shows a very heterogeneous market; however, all plastic types report falling quotes. The plastics processors are slow to order.

#### 5.1 Standard plastics - plastic wastes

A large supply of plastic waste is faced by only low demand from the recyclers. The good grades of plastic wastes only, here especially PP and PS are requested. It is reported that there is strong demand for export of film wastes. And that is why the price falls here are lower than expected.

Small price falls, which are often one-sided, have been reported for bale goods. The price falls are, on average,  $\in$ /t to 20  $\in$ /t, depending on the commodity. One-sided price falls are specific corrections of the bigger ranges that can be implemented easily in the downturn phase.

#### 5.2 Standard plastics - recyclates

The cheap virgin grades are putting the prices of recyclates under pressure. Falling recyclate prices are also caused by large supply with only low demand.

In the EUWID price index in February, regrinds are valued at an average 5  $\in$ /t lower than the previous month for PE and 35  $\in$ /t for PP. The PVC quotes fell by 38  $\in$ /t overall and PS by 21  $\in$ /t. Regranulates of PP and PS are finding a market.

### 5.3 PET recycling

Cheap PET virgin grade is readily available on the markets. Imports are supplementing the European offerings of PET. Moreover, the price of the virgin grade is continuing to fall; this is clear in a comparison of the current February quote  $(1,300 \in t)$  with that of one year ago  $(1,695 \in t)$ . As a consequence, plastics processors are switching from using recyclates to cheap virgin grade.

The falling prices for virgin grade and the good supply of processing grades are putting pressure on recyclate prices, in this case flakes and regranulates. Flakes and regranulates are still more expensive than virgin grade. The recyclers are only producing on part load. For the PET recyclers, no change to the tense situation is in sight.

Due to the low demand for processing material, there is good availability of beverage bottles. In February, the prices for used PET single-use bottles have therefore fallen further. The relative price changes are: PET transparent -50  $\in$ /t, PET mixed -60  $\in$ /t and PET coloured - 30  $\in$ /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.

### 6 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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