1 The 25th International Conference on Plastic Recycling, Dresden

The 25th International Conference on Plastic Recycling will start with a lunch buffet at 12:00 hrs on 6 June 2023 and the conference ends at around 13:00 hrs on 7 June with another lunch buffet. The conference will be held in the Maritim Hotel & International Congress Centre in Dresden, see https://altkunststofftag.bvse.de./en/.

byse-Fachverband Kunststoffrecycling organises the Conference on Plastic Recycling every year. The Conference has developed into a central meeting place for the international plastics industry. Regularly, hundreds of delegates experience fascinating presentations and discussions on the relevant issues associated with plastic recycling. This year, too, the International Conference on Plastic Recycling will introduce topical and controversial issues.

The first day, **the Central Forum**, 6 June 2023, 13:15 hrs: **Presentation** Prof. Dr. Rainer Dahlmann: "Requirements of Plastic Recycling"; then **Talk 1**, Led by Dr. T. Probst, on "Quantities, Markets, Prices" with M. Bäcker, PIE – Plastics Information Europe; C. Hündgen, Hündgen Entsorgung GmbH; S. Kremer, silver plastics GmbH and then **Talk 2**, Led by Dr. M. Engelmann on "EU Packaging Regulation" with Dr. C. Epping, BMUV; J. Blees, EURIC; Dr. F. Flanderka, Reclay Group GmbH; G. Rachut, ZSVR. After a coffee break, the conference will be continued with **two parallel workshops**, see <u>https://altkunststofftag.bvse.de/6-juni</u>.

The second day starts with the public session of the Working Group on International Plastic Markets, on cross-border shipping, in this case Italy and Poland, and on Austria's position on cable recycling (PVC). And in parallel to this, the third workshop "Plastic Product Design using the Example of Packaging" will be meeting, see <u>https://altkunststofftag.bvse.de/7-juni</u>.

2 Primary markets - standard plastics

The demand for standard plastics is weakening due to the economic downturn. Processors have an adequate supply of plastics. Virgin grade is available cheaply on the markets. The March price index for standard plastics showed only minor price corrections and often only one-sided changes to the quotes.

In March 2023 the EUWID average price was $1,569 \notin t$ and thus an average of only $9 \notin t$ lower than in the previous month $(1,578 \notin t)$; this is another signal of price stability, see Table 1. In a year-on-year comparison, it can be seen that the average quotes from March 2023 $(1,569 \notin t)$ were as much as $466 \notin t$ lower than those of the previous year $(2,035 \notin t)$, see EUWID, <u>www.euwid-recycling.de</u>. The quotes for plastics changed on average by $+5 \notin t$ for LDPE, $+10 \notin t$ for LLDPE, $+5 \notin t$ for PP, $-58 \notin t$ for PS. HDPE and PVC were quoted at unchanged prices.

Prices in €/t	March 2023	Feb. 2023	Jan. 2023	Dec. 2022	Nov. 2022
LDPE film grade	1460- 1570	1450- 1570	1440- 1540	1540- 1640	1570- 1670
LLDPE film grade	1370- 1520	1350- 1520	1300- 1520	1400- 1620	1450- 1650
HDPE injection moulding	1320- 1450	1320- 1450	1320- 1420	1420- 1520	1450- 1550
HDPE blow mould- ing	1300- 1460	1300- 1460	1280- 1430	1380- 1530	1400- 1550
PS crystal clear	1720- 1850	1800- 1900	1850- 1900	1750- 1800	1850- 1900
PS high impact	1850- 1950	1900- 2000	1900- 2000	1800- 1900	1900- 2000
PP homopolymer	1510- 1680	1500- 1680	1500- 1600	1600- 1700	1630- 1760
PP copolymer	1560- 1730	1550- 1730	1550- 1650	1650- 1750	1680- 1810
PVC tube grade	1410- 1510	1410- 1510	1460- 1510	1510- 1610	1580- 1680
PVC film/cables	1530- 1630	1530- 1630	1580- 1630	1630- 1730	1700- 1800
Average Price	1569 ± 180	1578 ± 200	1569 ± 205	1624 ± 141	1679 ± 164

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

PET: The demand for packaging PET has hardly improved to date; it is still low and supply is readily available. The stable prices for the precursor product PX - paraxylene are stabilising the PET quotes, see Fig. 1. Packaging PET was quoted at an average price of 1,300 €/t in March 2023, thus unchanged since the previous month. PIE – Plastic Information Europe <u>https://pieweb.plasteurope.com/</u>. The trend for European film and bottle grade was negative from February to April, on average by 50 €/t, also 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 2023; they will not become definitive until early May 2023. The two quotes stated for April 2023 below only an interim situation, see the left-hand column in Table 2 and Table 3.

3.1 plasticker: Standard plastics

The standard plastics were quoted at an average 690 \in /t in March 2023 and were thus 50 \in /t lower than the average quote for February 2023 of 740 \in /t, see Tab. 2. The average price for March 2023 (690 \in /t) was 27 \in /t below that of the previous year (717 \in /t).

There were significant price changes of greater than $\pm 40 \notin t$ for: LDPE bale goods $-200 \notin t$, LDPE regrind $-80 \notin t$, PP bale goods $-80 \notin t$, PP regranulates $-120 \notin t$, PS regranulates $+50 \notin t$, h_PVC $+100 \notin t$, PET bale goods $-120 \notin t$ and PET regrind mixed colours $-150 \notin t$. The March price index is characterised by satisfactory demand for plastic.

The probable average price in April 2023 (674 \in /t) is thus 16 \in /t lower than in the previous month (690 \in /t), see Tab. 2. The price index of 20.04.2023, shows only subdued demand for plastic.

	April ⁶	March	Feb. 23	January 23	Dec. 22	March 22
HDPE regrind ¹	670	730	750	760	650	710
HDPE regranu- lates ⁵	990	1020	1030	1020	1020	1100
LDPE bale goods ²	180*	200*	400*	270*	440*	400*
LDPE regrind ¹	380*	390*	470*	480*	490*	650*
LDPE regranu- lates⁵	850	900	890	850	890	1070
PP bale goods ³	310*	320*	400*	510*	480	380*
PP regrind ¹	740	740	760	780	770	790
PP regranulates ⁵	1020	1050	1170	1070	1190	1490
PS regrind ⁴	770*	780*	810*	690*	800*	880*
PS regranulates ⁵	1220*	1220	1170	1210*	1230	1330
PVC_P regrind ¹	790*	800*	830*	850*	440*	650*
PVC_U regrind ¹	780*	740*	640*	640*	520*	0*
PET bale goods	230*	220*	340*	470*	410*	200*
PET regrind mixed colours	500	550	700	610	700	390
Average Price	(674)	690	740	729	716	717

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 March 2023, there was an average price of 2,016 \in /t, which was 142 \in /t lower than that of the previous month (2,158 \in /t), see Table 3. With the March quotes we exceeded the high point of the February quotes. The average price for March 2023 (2,016 \in /t) was about the same as that of the previous year (2,029 \in /t).

Marked price falls can be seen in the individual commodities. The price of regranulates in particular fell markedly. There were significant price changes of greater than $\pm 70 \notin$ /t for: ABS regranulates -210 \notin /t, PC regrind -90 \notin /t, PC regranulates -340 \notin /t, PBT regrind -140 \notin /t, PBT regranulates -110 \notin /t, PA 6 regranulates -210 \notin /t, PA 6.6 regranulates -110 \notin /t and POM regranulates -340 \notin /t. The price index for March 2023 is characterised by satisfactory demand for plastic.

The probable average price in April2023 (1,930 \in /t) is thus 86 \in /t lower than in the previous month (2,016 \in /t). The price index of 20.04.2023 shows subdued demand for plastic.

	April ⁶ 23	March 23	Feb. 23	January 23	Dec. 22	March 22
ABS regrind	860	1040	1100	1020	850	970
ABS regranu- lates⁵	171	1780	1990	1810	1730	2500
PC regrind	1410	1320	1410	1480	1360*	1240*
PC regranulates ⁵	2600	2980	3320	2710	2510	3010
PBT regrind	820*	860*	1000*	900*	680*	810*
PBT regranulates	2910	3290	3400	3560	2290*	2940
PA 6 regrind	1060*	960	1010	1120*	1050*	860*
PA 6 regranu- lates ⁵	2840	2930	3140	3090	3070	2720
PA 6.6 regrind	1280	1350	1380	1370*	1350*	1250*
PA 6.6 regranu- lates⁵	3820	3780	3890	3770	3790	3870
POM regrind	1090*	970*	990*	990*	740*	1140*
POM regranu- lates ⁵	2760	2930	3270	2930	2290	3040
Average Price	(1930)	2016	2158	2063	1809	2029

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 plastics recyclers' problems continue, mainly high costs and low demand. The secondary markets are characterised by low demand for recyclates and cheap offers of virgin grade. What's more, the costs for energy and transport are having an impact on plastic recycling. In the basically calm markets there is occasional volatile demand, which makes continuous plant operation even more difficult. The pricing stated in Plastics Information Europe, EUWID and plasticker is an orientation guide, but the actual prices achieved may be very different. The situation on the secondary markets remains very calm.

Standard plastics: in March the EUWID price index for waste plastics contained only a few corrections, often one-sided and only in small amounts. The quotes for PE production wastes, PVC window grades and PS production wastes were completely unchanged. De-

mand was stated as subdued. The quotes in plasticker show clear price falls with still satisfactory demand. PIE – Plastics Information Europe, which quotes regranulates in the secondary markets, reports an overall trend of falling prices with low demand.

Technical plastics: plasticker reports clear price falls for technical plastics with subdued demand. And this situation is confirmed by PIE – Plastic Information Europe.

4.1 The Trade in Plastics

The EU Commission is trying to restrict the export of plastic wastes to third countries even more. The EU's measures are now starting to take effect. Ever more member states are expanding their existing recovery. Not least, exports are falling to lowest levels. For example, in 2022, only 1.11 million tonnes of plastics were exported from the 27 member states to third countries - that is the lowest amount for 19 years, also see EUWID RE, 15, 2023, 19.

In return, the demand for good plastic wastes in the EU is growing. A new peak has been reached with imports of 824,000 tonnes. Dealers and brokers now use waste status as well as product status for imports. For the import of products, the requirements of legislation relating to substances, in this case mainly REACH and CLP, must be observed. Lively trade meets the WHO requirements. Moreover, resilient international prices have been set as a result of international trade. In addition, the internationally applicable quality requirements for recycling have been defined by imports and exports.

4.2 PET Recycling

PET recyclers are still under pressure. Good supply of virgin grade and overall falling prices for virgin grade are reasons for this. The European supply of virgin grade is supplemented by imported grades from outside Europe. Furthermore, dealers are now importing PET for recycling (bottles, flakes, regranulates) from non-European countries into the EU.

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. The recyclers' warehouses are replete with used bottles. And regranulates are still more expensive than virgin grades, see Fig. 2. For the PET recyclers, no change to the tense situation is in sight in March or April.

Due to the still low demand for processing material, there is good availability of beverage bottles. As the spring ends (May) and summer starts (June), higher temperatures should also bring about higher consumption of beverages. And this has a double effect, because on the one hand, the demand for rPET rises and on the other the supply of beverage bottles increases.

In March, the prices for used PET single-use bottles have fallen further. The relative price changes are: PET transparent +15 €/t, PET mixed -15 €/t; PET coloured remained unchanged. 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>, 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

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. 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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