1 General economy and reference to the plastics industry

ifo growth forecast: The ifo Institut has reduced its growth forecast for 2024 to 0.7% from the 0.9% that it was still predicting in mid-December, see

https://www.ifo.de/pressemitteilung/2024-01-24/ifo-institut-kappt-wachstumsprognose-fuer-2024. "The federal budget now agreed in the Budget Committee decided on additional savings of just under EUR 19 billion according to our estimates," said ifo Head of economics Timo Wollmershäuser. "Companies and households will be subject to even more burdens or enjoy less relief and government expenditure will be cut."

ifo business climate index Germany: The mood among companies has deteriorated, see https://www.ifo.de/fakten/2023-12-18/ifo-geschaeftsklimaindex-gefallen-dezember-2023. The ifo business climate index fell to 86.4 points in December, after 87.2 points in November. Companies were less satisfied with current business. They are also more sceptical about the first half of 2024. The economy remained weak over the Christmas period. The business climate index has fallen markedly in the manufacturing sector. Companies assess their current business situation as much worse. Pessimism also grew with respect to expectations. Energy-intensive sectors in particular are having a difficult time. Incoming orders overall are still falling.

2 Primary markets - standard plastics

The price fall for standard plastics is continuing. In December 2023, the EUWID average price of 1,341 €/t was 53 €/t lower than in the previous month (1,394 €/t) see Tab. 1. In a year-on-year comparison, it can be seen that the average quotes from December 2023 (1,341 €/t) were 283 €/t lower than those of the previous year (1,624 €/t).

The average current mean value (1,341 €/t) is already in the area of the long-term mean $(1,294\pm146 €/t)$ from 01/2012 to 12/2020. Or, to put it another way, we may have reached a stable price level for standard plastics at the long-term mean value (1,294 €/t).

The quotes for plastics fell markedly, by 35 €/t for LDPE, 40 €/t for LLDPE, 38 €/t for HDPE, 40 €/t for PP, 120 €/t for PS and 30 €/t for PVC. 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/.

Table 1:	Standard plactice p	rices according to EUWI	D over the past five	months listed in f/t
rable 1:	Standard blastics b	rices according to EUWi	D over the bast five	months, listed in \pm/τ .

Prices in €/t	Dec. 2023	Nov. 2023	Oct. 2023	Sept. 2023	Aug. 2023
LDPE film grade	1200- 1220	1230- 1260	1280- 1310	1200- 1250	1160- 1210
LLDPE film grade	1190- 1230	1230- 1270	1280- 1320	1200- 1260	1130- 1230
HDPE injection moulding	1190- 1240	1230- 1280	1280- 1330	1220- 1270	1170- 1220
HDPE blow moulding	1180- 1250	1210- 1290	1260- 1340	1200- 1280	1150- 1230
PS crystal clear	1600- 1680	1720- 1800	1870- 1950	1810- 1890	1640- 1720
PS high impact	1730- 1780	1850- 1900	2000- 2050	1940- 1990	1770- 1820
PP homopolymer	1330- 1390	1370- 1430	1420- 1480	1390- 1450	1330- 1420
PP copolymer	1380- 1440	1420- 1480	1470- 1530	1440- 1500	1380- 1470
PVC tube grade	1080- 1180	1110- 1210	1150- 1250	1130- 1230	1100- 1200
PVC film/cables	1210- 1310	1240- 1340	1280- 1380	1260- 1360	1230- 1330
Average Price	1341 ± 204	1394 ± 236	1462 ± 276	1414 ± 272	1345 ± 225

PET: Hopes for increased demand for PET beverage bottles because of the Christmas holidays were dashed; demand continued to weaken in December. It is interesting that the shift in plastic pack-

agings towards PET has so far had little influence on higher PET demand. There is no market impetus and the private consumer is continuing to save.

PET quotes are moving downwards, just like the other plastics. In December 2023, packaging PET was quoted on average at 1,205 €/t and thus 10 €/t lower than in the previous month, see PIE – Plastic Information Europehttps://pieweb.plasteurope.com/. However, virgin grade is also traded in the region of 1,030 €/t to 1,070 €/t on the spot markets, see www.euwid-recycling.de.

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 January 2024; they will not become definitive until early February 2024. The two quotes stated for January 2023 below therefore indicate only an interim situation, see the left-hand column in Table 2 and Table 3.

3.1 plasticker: Standard plastics

Table 2:

Standard plastics were quoted at an average 576 €/t in December 2023 and were thus almost identical to the average quote for November 2023 of 569 €/t, see Tab. 2. The average price for December 2023 (576 €/t) was 140 €/t below that of the previous year (716 €/t).

There was significant price change of greater than ±40 €/t only for LDPE bale goods at +70 €/t. The December price index is characterised by subdued demand for plastic.

The probable average price in January 2024 (also 576 €/t) is thus unchanged in comparison to in the previous month, see Tab. 2. The price index of 15.01.2024, shows only low demand for plastic.

Dec. 22

	January ⁶ 24	Dec. 23	Nov. 23	Oct. 23	Sept. 23	
HDPE regrind ¹	580	580	580	640	610	
HDPE regranulates ⁵	840	870	880	920	860	
LDPE bale goods ²	240*	230*	160*	300*	170*	
I DPF regrind ¹	450*	410*	360*	290*	180*	

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

HDPE regrind ¹	580	580	580	640	610	650
HDPE regranulates ⁵	840	870	880	920	860	1020
LDPE bale goods ²	240*	230*	160*	300*	170*	440'
LDPE regrind ¹	450*	410*	360*	290*	180*	490*
LDPE regranulates⁵	830	860	800	840	700	890
PP bale goods ³	220	230	200*	220	250*	480
PP regrind ¹	600	580	600	640	640	770
PP regranulates ⁵	840	830	850	940	860	1190
PS regrind⁴	730*	700	680	710	760	800*
PS regranulates⁵	830	980	1000	980	1020	1230
PVC_P regrind ¹	630*	640*	660*	700*	720*	440*
PVC_U regrind ¹	660*	550	550	630*	630*	520*
PET bale goods	220	200*	190*	320	250*	410*
PET regrind mixed	400	410	450	480	430	700
colours						700
Average Price	(576)	576	569	615	577	716

^{*:} 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 December 2023, there was an average price of 1,643 $\$ /t, which was more or less the same as that of the previous month (1,628 $\$ /t), see Table 3. The average price for December 2023 (1,643 $\$ /t) was 166 $\$ /t below that of the previous year (1,809 $\$ /t).

Some surprising price movements have been observed: whereas the prices of regrinds have mostly fallen, there have mostly been price rises for regranulates. There were significant price changes of greater than ± 70 €/t for: PC regrind -90 €/t, PC regranulates +180 €/t, PBT regranulates -230 €/t, PA 6 regranulates +120 €/t, PA 6.6 regrind -100 €/t, PA 6.6 regranulates +130 €/t and POM regranulates +130 €/t. The price index for December is characterised by demand for plastic that is deemed to be just about adequate.

The probable average price in January 2024 (1,663 €/t) is thus almost identical to that of the previous month (1,644 €/t). The price index of 15.01.2024 shows subdued demand for plastic.

	January ⁶ 24	Dec. 23	Nov. 23	Oct. 23	Sept. 23	Dec. 22
ABS regrind	770	740	670	700	750	850
ABS Granulat5	1250	1370	1350	1400	1320	1730
PC regrind	1260	1120	1210	1270	1260	1360*
PC Granulat5	2390	2370	2190	2080	2300	2510
PBT regrind	670*	620	660	670	680*	680*
PBT regranulates	2470	2220	2450	2520	3230	2290+
PA 6 regrind	940	960	970	1050	1130	1050*
PA 6 regranulates ⁵	2400	2460	2340	2610	2610	3070
PA 6.6 regrind	920*	1030	1130	1190	1240	1350*
PA 6.6 regranu- lates ⁵	3320	3260	3130	3480	3980	3790
POM regrind	710*	690	690	740	750	740*
POM regranulates ⁵	2850	2870	2740	3030	3250	2290
Average Price	(1663)	1643	1628	1728	1875	1809

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

4 Secondary plastics markets

2023 is characterised by the bleak situation of plastic recycling. The price fall for recyclates can be seen in the publications EUWID, PIE – Plastic Information Europe and plasticker. For example, EUWID RE, 1/2, 2024, p. 22 reported that demand for recycled plastics was largely positive until the summer of 2022. Since then, however, it has fallen sharply and prices have fallen by more than half.

Sorted plastic fractions still find a market. Sorted fractions are processing in Germany and all over Europe. In this connection, reference is made to the plastic levy in Spain (0.45 €/kg), which initially caused a recycling boom, but this did not last.

Export beyond Europe is also gaining in importance. Moreover, sorted fractions and the recyclates made of them are being stored. These surplus quantities could become more important for the markets when there is stronger demand for recycled plastics.

It can also be seen on the markets that recyclers are being bought up by plastics manufacturers and the chemicals industry. The reorganisation of plastic recycling continues.

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

4.1 Recycling standard plastics

The year 2023, which was extremely difficult for recyclers of standard plastics, has finally come to an end. And sadly, the forecasts for the first half of 2024 are not very optimistic. In December, there was little movement in standard plastics. And the winter break is continuing in January 2024.

Given the few sales, the EUWID price index is mainly used for an initial estimate in negotiations. The prices actually negotiated may deviate greatly from it. The prices for plastic wastes continue to fall for bale goods of PE post user in comparison to the previous month; these price falls are 10 €/t, averaged over all commodities, see www.euwid-recycling.de. plasticker also reports little movement in the plastics markets.

Recyclate prices, in this case for regrinds, are stable, see www.euwid-recycling.de. And the regranulate prices have remained stable or are quoted only slightly lower, see https://pieweb.plasteurope.com/. LDPE films have fallen by 14 €/t on average. The price of HDPE is unchanged.

4.2 Recycling technical plastics

The year 2023, which was extremely difficult for recyclers of technical plastics, has finally come to an end. In plasticker, the December quotes are largely stable. But at least some purchases could be seen. In December, technical plastics were quoted on average at 1,644 €/t. In January 2024, the market conditions of November and December will continue to apply.

In PIE – Plastic Information Europe, the regranulates prices fell sharply again in December 2023, see https://pieweb.plasteurope.com/. The price falls are between 10 €/t and 75 €/t, depending on the compound.

4.3 PET recycling

There is movement, albeit modest, on the markets for PET recyclers. Effects on clearing the warehouse stocks at the end of the year and the start of the year are noticeable. Due to the uncertain developments on the PET markets, some sellers are ordering goods in anticipation.

Nevertheless, in December the prices for used PET single-use bottles were unchanged, see EUWID. The difference between clear recycled flakes and virgin grade is an average 335 €/t, see PIE − Plastic Information Europe. Clear flakes are being traded at around 870 €/t. In PIE − Plastic Information Europe, regranulates are still quoted as more expensive than virgin grade. 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

<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 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.

Bonn, Thursday, 8. February 2024

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