1 General economy and reference to the plastics industry

The ifo business climate index Germany has published the results of the ifo economic survey for October 2024, see <u>https://www.ifo.de/fakten/2024-10-25/ifo-geschaeftsklimaindex-gestiegen-oktober-2024</u>. The ifo business climate index rose in October 2024. The mood among companies in Germany has improved. The ifo business climate index rose to 86.5 points in October, following on from 85.4 points in September. This is the first rise after four falls in succession. Companies were slightly more satisfied with their current situation. Expectations also picked up, but remained coloured by scepticism. The German economy has been able to halt the decline.

The downwards trend did not continue in the manufacturing sector this month. This is due to less pessimistic expectations in companies. However, the companies assess their current business to be much worse. A shortage of orders remains a central problem. Capacity utilisation fell by 1.2 % and, at 76.5 %, is well below the long-term average of 83.4 %.

2 Primary markets - standard plastics

Another price fall was reported for standard plastics. And there were no market impulses towards the end of the year. Processors have low warehouse stocks at the turn of the year. Low crude oil prices, low quotes for monomers and cheap imports are suppressing the prices of European standard plastics. No change in the tense situation is expected in the medium term.

In October 2024, the EUWID average price of 1,394 €/t was therefore 64 €/t lower than in the previous month (1,4583 €/t), see Tab. 2. In a year-on-year comparison, it can be seen that the average quotes from October 2024 (1,394 €/t) were 68 €/t lower than those of the previous year (1,462 €/t). The current market situation for virgin grade 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	October 2024	Sept. 2024	Aug. 2024	July 2024	June 2024
LDPE film grade	1280- 1350	1310- 1390	1290- 1390	1250- 1350	1250- 1350
LLDPE film grade	1250- 1300	1290- 1350	1290- 1350	1260- 1330	1260- 1330
HDPE injection moulding	1270- 1300	1310- 1340	1310- 1340	1290- 1320	1290- 1320
HDPE blow moulding	1260- 1310	1300- 1350	1300- 1350	1280- 1330	1280- 1330
PS crystal clear	1630- 1680	1830- 1880	1830- 1880	1750- 1880	1850- 1910
PS high impact	1760- 1780	1960- 1980	1960- 1980	1880- 1900	1980- 2010
PP homopolymer	1390- 1480	1420- 1530	1420- 1530	1390- 1510	1390- 1510
PP copolymer	1440- 1530	1470- 1580	1470- 1580	1440- 1560	1440- 1560
PVC tube grade	1100- 1200	1100- 1200	1080- 1180	1070- 1170	1060- 1160
PVC film/cables	1230- 1330	1230- 1330	1210- 1310	1200- 1300	1190- 1290
Average Price	1394 ± 192	1458 ± 258	1453 ± 263	1423 ± 247	1444 ± 281

PET: PET is following the downwards trend of the other standard plastics. The PET markets therefore have to be described as tepid, sluggish and ailing; there is no impetus. No positive change in the tense situation is expected in the medium term. Surprisingly, the food industry has not understood that there are no incentives to buy for consumers. The price rises in the food and drink sector continue to result in reticence to purchase on a broad front.

In October 2024 packaging PET was quoted on average at 1,150 €/t. And thus 100 €/t lower than in the previous month, see PIE – Plastic Information Europe <u>https://pieweb.plasteurope.com/</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 November 2024; they will not become definitive until early December 2024. The two quotes stated for November 2024 below therefore indicate only an interim situation, see the left-hand column in Table 3 and Table 4.

3.1 plasticker: Standard plastics

Since 06/2023, average prices have been hovering around 600 \notin /t, see Fig. 1. The upheavals in the quotes for standard plastics between 08/2020 and 06/2023 can be clearly seen in the graph. One of the causes of the upheavals is the coronavirus pandemic, which started in 03/2020 and lasted until 04/2023. It will be interesting to see where the quotes for standard plastics will settle.

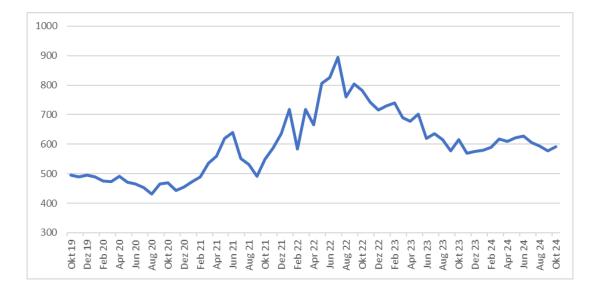


Fig. 1: Average monthly quotes of standard plastics in the period from 10/2019 to 10/2024, averaged from the price information from plasticker.

Happily, the October price index shows better demand than in the previous month. In October 2024, standard plastics were quoted at an average price of $591 \notin t$ and thus $14 \notin t$ higher than in the previous month ($577 \notin t$), see Tab. 3. The average price for October 2024 ($591 \notin t$) was $24 \notin t$ below that of the previous year ($615 \notin t$). There were significant price changes of greater than $\pm 40 \notin t$ for: PS regranulates $-100 \notin t$ and PVC_u regrind $\pm 90 \notin t$. Those price changes for which supply figures were too low (*) for statistical significance are not included here.

The likely average price in November 2024 (583 \notin /t) is thus 8 \notin /t lower than in the previous month (591 \notin /t), see Tab. 3. The price index of 11.11.2024 shows slightly better demand in comparison to the previous month.

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

November ⁶ 24	Oct. 24	Sept. 24	Aug. 24	July 24	Oct. 23
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Average Price	(583)	591	577	594	605	615
PET regrind mixed colours	470	450	350*	400*	430*	480
PET bale goods	320*	270*	220*	170*	190*	320
PVC_U regrind ¹	480*	570	480	530*	580	630
PVC_P regrind ¹	660*	650*	770*	690*	730*	700*
PS regranulates ⁵	810	870	970	1000	970	980
PS regrind ⁴	580	690	710	630*	650	710
PP regranulates ⁵	850	920	950	950	970	940
PP regrind ¹	490	540	540	550	540	640
PP bale goods ³	210	210	140*	190	190	220
LDPE regranulates ⁵	770	760	780	820	780	840
LDPE regrind ¹	410*	510*	440*	440*	520*	290*
LDPE bale goods ²	560*	430	300*	460*	410*	300*
HDPE regranulates ⁵	930	850	890	940	950	920
HDPE regrind ¹	620	560	540	540	560	640

*: 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 October, there was an average price of $1,472 \notin /t$, which was $49 \notin /t$ lower than that of the previous month (1,521 \notin /t), see Table 4. The average price for October 2024 (1,472 \notin /t) was 256 \notin /t below that of the previous year (1,728 \notin /t).

There were significant price changes of greater than $\pm 70 \notin t$ for: PC regranulates $\pm 170 \notin t$, PBT regranulates $\pm 300 \notin t$, PA 6 regranulates $\pm 140 \notin t$, PA 6.6 regranulates $\pm 130 \notin t$, POM regrind $\pm 130 \notin t$, and $\pm 140 \notin t$. Happily, the October price index shows better demand than in the previous month.

The probable average price in November 2024 (1,498 \in /t) is thus 26 \in /t higher than in the previous month (1,498 \in /t). The price index of 11.11.2024 shows slightly better demand in comparison to the previous month.

	November ⁶ 24	Oct. 24	Sept. 24	Aug. 24	July 24	Oct. 23
ABS regrind	630	660	670	640	650	700
ABS regranulates ⁵	1270	1280	1380	1380	1360	1400
PC regrind	910	970	1050	1010	1010	1270
PC regranulates ⁵	2730	2560	2340	2420	2570	2080
PBT regrind	580	630	640	710	730	670
PBT regranulates	2240	1940	2180	2360	2110	2520
PA 6 regrind	920	880	780	900	920	1050
PA 6 regranulates ⁵	2280	2140	2210	2380	2410	2610
PA 6.6 regrind	1120	1160	1000	980	970	1190
PA 6.6 regranu- lates⁵	2600	2470	2690	2940	2690	3480
POM regrind	620*	750	750*	800*	730*	740
POM regranulates ⁵	2080	2220	2560	2590	2790	3030
Average Price	(1498)	1472	1521	1593	1578	1728

Table 4: Technical plastics price according to plasticker; listed in ϵ/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

Is there any positive news in the plastics industry - including plastic recycling? What is changing in plastic recycling? Answering these questions is of central importance for the future of plastic recycling

LWP plastics: It should be generally said here that there is far too little recycling of LWP plastics . However, there are niches and hot spots that provide a cautious demand. Production is being shifted from Germany to neighbouring countries because of the lower electricity prices.

In the sector of LWP plastic recycling, PET recycling is bravely still holding its own in 2024. Even though the market upheavals increase towards the end of the year, over 2024 as a whole, the PET recyclers have been able to sell flakes and regrinds, albeit at much lower levels than in previous years. The legally prescribed recyclate usage rate of 25 % in 2025 for PET bottles is having a positive impact in advance. PET recyclers can expect increasing sales of their recyclates in 2025.

And as far as PO plastics are concerned, we are observing a move away from HDPE towards PP. PP recyclers can benefit from this trend, which is at a low level. Those recyclers who don't just stick at the recyclate stage, but also manufacture products, are the ones who benefit with PP.

Mixed plastic recycling mainly proving its worth outside Germany. These products are mainly sold in countries outside Europe. The good grades of mixed plastic products are recognised abroad. In contrast to this, our national requirements make recognition of mixed plastic products more difficult; exceedingly so.

Technical plastics: But there are niches here, too, that dictate demand for technical plastics. However, the fluctuations in demand are considerable. The demand for commodities also varies greatly.

Foam plastics: Rigid foams, this is mainly polyurethanes, are also suffering from economic upheavals, in this case the construction sector, in particular. In the various market sectors of polyurethanes it can be said that they are increasingly replacing thermoplastics. Although this is a positive development for foam plastics, it is at the expense of thermoplastics, in this case standard plastics, and technical plastics.

4.1 Recycling standard plastics

Everyone should be aware that the plastics recyclers determine the prices for the input - buyer's market. And this means that the published prices for plastic waste are just a guide. The specific contracts concluded may deviate greatly from the published quotes. Plastics recyclers are under enormous pressure, which leads to short-time working, take-overs and closures.

As in previous years, there will be a longer Christmas break this year, too. There will therefore be hardly any movement in the prices actually paid for standard plastics in November and December. One dealer put it in a nutshell: "2024 is over. The first three quarters were bad". Or, to put it another way, 2024 was an *annus horribilis* for plastic recycling.

The EUWID price index remains stable. In EUWID we see just a few price falls for plastic wastes, in this case for PE-post user. The other quotes are unchanged. The difficult market situation for plastic recycling is very accurately described in EUWID RE 46, 2025, p. 19, 20.

plasticker: The plasticker price index was a lone voice against the downward trend in October. In October 2024, standard plastics were quoted at an average price of $591 \notin/t$ and thus $14 \notin/t$ higher than in the previous month. Demand has improved slightly. This increase in demand is a positive interim high that is unlikely to last through the winter break.

PIE – Plastic Information Europe, regranulates: In October 2024, all of the regranulates of standard plastics were quoted lower in comparison to the previous month. The average price falls are in the range of $5 \notin t$ to $20 \notin t$. The forecasts for the months ahead are of particular interest in PIE. The demand for standards plastics is low, see <u>https://pieweb.plasteurope.com/</u>.

4.2 Recycling technical plastics

plasticker: For October, there was an average price of $1,472 \notin t$, which was $49 \notin t$ lower than that of the previous month (1,521 $\notin t$). The increase in demand in October is a positive interim high that is unlikely to last through the winter break.

PIE – Plastic Information Europe, regranulates: In October 2024, regranulates were quoted lower in PIE – Plastic Information Europe. The premium grades of regranulates quoted here recorded average price falls of $10 \notin t$ to $30 \notin t$, see <u>https://pieweb.plasteurope.com/</u>.

4.3 PET recycling

However 2024 is assessed for PET recycling, a very positive development should begin to emerge for 2025. The requirements for a minimum recyclate percentage for certain single-use beverage bottles according to Article 30a of the German Packagings Act (VerpackG) will certainly enliven PET recycling. In fact, it remains to be seen whether this will not result in a shortage of PET recyclates for other recycled products, i.e., films, trays, non-beverage bottles, etc. Due to the European validity of the legislation, European compensatory movements will be of interest.

The PET markets in October: PET recycling is picking up speed. October has proved to be relatively stable. The volume of used PET bottles is adequate. Warehouse stocks will tend to be depleted rather than built up by the end of the year. In October , the relevant price changes for used PET single-use deposit bottles are: PET transparent -20 \notin /t, PET mixed -20 \notin /t and PET coloured -20 \notin /t, see EUWID.

For virgin grade, in this case granulates, the average value in PIE – Plastic Information Europe is 1,150 €/t. The pressure on recyclate prices, in this case flakes and regranulates, is increasing because virgin grade is becoming even cheaper. Regranulates are valued at 1,550 €/ in PIE – Plastic Information Europe. Clear, food-safe flakes are quoted at an average 1,265 €/t in PIE – Plastic Information Europe.

Reporting on PET markets is of central importance in EUWID and PIE – Plastic Information Europe. Detailed monthly reports on the PET prices for virgin grade, and for used beverage bottles and market assessments 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 follow-

ing 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 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, Wednesday, 27. November 2024

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