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1 General economy with reference to the plastics industry

The ifo business climate index fell in January 2020, also see www.ifo.de/ifo-geschaeftsklimaindex. The mood in German board rooms has taken a turn for the worse at the start of the year. The ifo business climate index fell to 95.9 points in January, following on from 96.3 points in December. This is due to pessimistic expectations in companies. However, the indicator of the current situation has risen slightly. The German economy is starting the new year in a subdued mood.

Manufacturing industry is showing signs of recovery. The business climate has improved markedly. The index on the current situation, in particular, has risen significantly. The last time we saw a higher rise was February 2017. Furthermore, entrepreneurs' pessimism concerning the months ahead fell again. Capacity utilisation rose from 82.6 % to 83.1 %.

2 The primary plastics market

2.1 Standard plastics

In a year-on-year comparison of the EUWID standard plastics price index, it can be seen that the average quotes from December 2019 (1,097 €/t) were 133 €/t lower than those of the previous year (1,230 €/t). In December 2019, the EUWID standard plastics price index had average quotes that were only 10 €/t lower (1,097 €/t) than in the previous month (1,107 €/t), see Table 1. In the December quotes, only the PS prices fell, by an average of 50 €/t. The mood in the markets for standard plastics remains gloomy.

Since September 2018, the price for packaging PET, then at $1,480 \in /t$, has fallen continuously to only $1,060 \in /t$ now. And this means that within the period packaging PET has fallen by a total of $420 \in /t$. In December 2019 the price for packaging PET is $1,060 \in /t$ and thus $25 \in /t$ lower than in the previous month $(1,085 \in /t)$.

Prices in €/t	December 19	Nov. 19	Oct. 19	Sept. 19	August 19
LDPE film grade	980- 1050	980- 1050	1010- 1080	1010- 1080	1050- 1120
LLDPE film grade	990- 1080	990- 1080	1020- 1110	1020- 1110	1060- 1150
HDPE injection moulding	1090- 1150	1090- 1150	1120- 1180	1120- 1180	1180- 1240
HDPE blow	1110- 1170	1110- 1170	1140- 1200	1140- 1200	1180- 1240
moulding	1110 1170	1110 1170	1140 1200	1140 1200	1100 1240
PS crystal clear	1180- 1240	1230- 1290	1290- 1350	1310- 1370	1250- 1310
PS high impact	1280- 1340	1330- 1390	1390- 1450	1410- 1470	1350- 1410
PP homopolymer	1180- 1230	1180- 1230	1210- 1260	1210- 1260	1290- 1340
PP copolymer	1230- 1280	1230- 1280	1260- 1310	1260- 1310	1340- 1390
PVC tube grade	800- 840	800- 840	810- 860	810- 860	830- 880
PVC film/cables	840- 880	840- 880	850- 900	850- 900	870- 920
Average Price	1097 ± 162	1107 ± 174	1140 ± 186	1144 ± 191	1170 ± 182

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

2.2. Technical plastics

There was a sharp fall in the price of technical plastics. From October 2019 (2,523 €/t) to December 2019 (2,407 €/t), technical plastics fell by 116 €/t, see Table 2. The average price in December 2019 (2,407 €/t) was 510 €/t lower than that of December in the previous year (2,917 €/t). The "Plastixx TT" index, collected by KI Plastics Information Europe, see www.kiweb.de, showed a current value of only 1,356 points in December 2019. This level of December 2019 (1,356 points) was the lowest since December 2016 (1,353 points).

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Table 2: EUWID quotes for technical prices, which are published every two months, over the last six months; prices in €/t.

Prices in €/t	December 2019	October 2019	August 2019	June 2019
PMMA crystal clear	3000 – 3200	3050 - 3250	3100 – 3300	3200 - 3400
ABS natural	1510 – 1560	1610 – 1660	1610 – 1660	1610 – 1660
ABS w/b	1610 – 1660	1710 – 1760	1710 – 1760	1710 – 1760
ABS coloured	2210 – 2360	2310 – 2460	2310 – 2460	2310 – 2460
PC crystal clear	2450 – 2700	2550 – 2850	2650 – 2950	2950 - 3150
PC GF-reinforced	2650 – 2900	2750 – 3050	2850 – 3150	3150 – 3350
POM natural	1850 – 1950	1900 – 2000	1900 – 2000	1920 – 2020
PA 6 natural/black	1900 – 2050	2000 – 2200	2050 – 2250	2250 – 2450
PA 6 GF-reinforced	2000 – 2050	2100 – 2150	2150 – 2200	2350 – 2400
PA 66 natural	3350 - 3500	3550 – 3700	3750 – 3950	3950 – 4150
PA 66 GF-reinforced	3200 – 3300	3400 – 3500	3600 – 3700	3800 – 3900
Average Price	2407	2523	2594	2723

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 2020; they will not become definitive until early February. The two quotes stated for January 2020 below therefore indicate only an interim situation, see the left-hand column in Table 3 and Table 4.

3.1 plasticker: Standard plastics

The prices for standard plastics held their own in December 2019. For example, in December 2019 the average price of standard plastics was 496 €/t and thus almost identical to the previous month (489 €/t), see Table 3. The average price for December 2019 (496 €/t) was 58 €/t below that of the previous year (554 €/t). Significant price rises of 60 €/t can be seen only in the PET quotes in December 2019. LDPE bale goods were quoted at only 80 €/t in November and only 90 €/t in December. The December price index is showing subdued demand for plastic due to the holidays.

The information in Table 3 shows price falls for January 2020. At 479 €/t, the preview of the January quotes shows an average price that is 17 €/t lower than in the previous month (483 €/t). The January 2020 price index, 15.01.2020, shows very low demand for plastic to date.

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

	Jan. ⁶ 20	Dec. 19	Nov. 19	Oct. 19	Sept. 19	Dec. 18
HDPE regrind ¹	580	600	600	570	560	590
HDPE regranu- lates ⁵	770	820	790	810	800	800
LDPE bale goods ²	120	90	80	180	240*	230*
LDPE regrind ¹	500	510	490	510	480	590
LDPE regranu- lates ⁵	590	680	660	670	670	700
PP bale goods ³	160*	150	190*	140*	290*	200
PP regrind ¹	550	570	570	550	570	550
PP regranulates ⁵	810	790	820	820	830	960
PS regrind⁴	620*	600	600	620	610*	660

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PS regranulates ⁵	880	810	850	850	880	1090*
PVC_P regrind ¹	350*	260*	290*	320*	370*	400*
PVC_U regrind ¹	390*	460*	420	360	380*	390*
PET bale goods	170*	210*	150*	190	160*	200
PET regrind mixed colours	370	400	340	340	340	400
Average Price	(479)	496	489	495	513	554

^{*:} 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"; ⁵: preview (may be amended by additional quotes)

3.2 plasticker: Technical plastics

In December 2019 the average price for technical plastics in plasticker is 1,227 €/t and thus $39 \, \text{€/t}$ higher than in the previous month (1,188 €/t), see. Table 4. A comparison of the average prices from December 2019 (1,227 €/t) with those of the previous year (1,404 €/t) shows a difference of 177 €/t. The December price index is showing subdued demand for plastic due to the holidays. These plastics show price changes of more than \pm 70 €/t: ABS regranulate \pm 160 €/t, PC regrind -80, PC regranulate \pm 140 €/t, PA 6.6 regranulate \pm 140 €/t and POM regranulate \pm 90 €/t.

At 1,292 €/t, the preview of the January quotes of 15.01.2020 shows an average price that is as much as 65 €/t higher than in the previous month (1,227 €/t). The January price index records continuing subdued demand for plastic.

Table 4: Technical plastics price according to plasticker; listed in €/t.

	Jan. ⁶ 19	Dec. 19	Nov. 19	Oct. 19	Sept. 19	Dec. 18
ABS regrind	610	600	610	600	610	700
ABS regranu- lates ⁵	1770*	1250	1090	1120	1230	1460
PC regrind	930	890	970	940	940	960
PC regranulates ⁵	1690	1820	1680	1470	1640	2100
PBT regrind	490	510	520	450	510	590
PBT regranulates	1600	1600	1570	1590	1570	1940
PA 6 regrind	890	880	880	830	810	880
PA 6 regranu- lates ⁵	1790	1830	1760	1700	1760	2000
PA 6.6 regrind	890	920	940	880	870	990
PA 6.6 regranu- lates ⁵	2260	2200	2060	2010	2120	2420
POM regrind	990	710	620	590	590	660*
POM regranu- lates ⁵	1590*	1510	1550	1400	2050	2150
Average Price	(1292)	1227	1188	1132	1225	1404

⁵: equivalent to the grade "regranulates, black"; ⁶:preview (may be amended by additional quotes).

4 Evaluation of the secondary plastic markets

4.1 Standard plastics

The use of recyclates in the packagings sector is now a success story. Demand for recyclates is thus rising steadily. Companies are seeking out recyclates to enhance their products. Trend setters such as Werner & Merz are blazing a trail in the plastics market as a

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whole. As well as PET, polyolefines are also benefiting from this recycling trend. The use of recyclates in the packagings sector is also increasing due to the fact that recyclates are increasingly being used for applications in the non-food sector.

The winter break lasted until mid-January. After the winter break, an increased volume of plastic waste has to be dealt with. Both price indices, EUWID and plasticker, show subdued demand for recyclates. In December 2019, a comparison of the information for standard plastics shows that EUWID records continuing falling prices whereas plasticker is indicating price stability.

The EUWID price index: there were price falls for almost all of the grades quoted. The price falls were $10 \in /t$ to $25 \in /t$ for PE post-industrial. The PE post-user sector record average price falls of $5 \in /t$ to $25 \in /t$. The price drops for PP post-industrial are $20 \in /t$ to $30 \in /t$. PVC post-industrial are $10 \in /t$ to $20 \in /t$. And PS post-industrial fell by $20 \in /t$ to $30 \in /t$. What is noticeable about the price drops in EUWID is that they are different from the lower to the upper price limit - or, to put it another way, the price margin is closing for some quotes.

The mean EUWID quotes for PS post-industrial waste are: standard mixed colours 430 €/t, standard crystal clear 500 €/t, standard white 500 €/t, high-impact mixed colours 430 €/t, high-impact black 510 €/t, and high-impact white 600 €/t.

The mean EUWID quotes for PE post-user films are: LDPE shrink hoods natural 350 €/t, LDPE shrink hoods mixed colours 90 €/t, thin film transparent natural 178 €/t, thin film transparent coloured 5 €/t, LDPE agricultural film -35 €/t, commercial mixed film (90/10) 70 €/t and commercial mixed film (80/20) 35 €/t.

4.2 PET Recycling

The PET recyclers have ended their winter break. The increased volume of bottles from Christmas will be processed. Although PET recycling is coming under pressure because of the price falls for virgin grade, the trend towards recycled PET in the food and non-food sectors is continuing. And this is causing stronger demand for clear regrinds, which, in turn, is stabilising the prices of recyclates. The December quotes for used PET returnable bottles have not changed in comparison with the previous months, see the EUWID price index for used PET single-use returnable bottles.

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, or in EUWID Plastics www.euwid-kunststoff.de. 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 www.plasticker.de. 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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Bonn, Friday, 31. January 2020 byse

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