### 1 General economy with reference to the plastics industry

The mood among German managers has improved slightly. The ifo business climate index rose to 95.0 points in November, following on from 94.7 points in October, also see <a href="https://www.ifo.de/ifo-geschaeftsklimaindex">www.ifo.de/ifo-geschaeftsklimaindex</a>. Companies were slightly more satisfied with their current business situation than in the previous month. And their expectations were also less pessimistic. The German economy is proving to be resilient. The ifo Institute is anticipating a rise in GDP of 0.2 % in the fourth quarter.

However, the manufacturing sector remains in recession. In November, the index fell again after a temporary rise in October. This is due to a noticeably worse business situation. Expectations for the future business situation are improving slightly. Companies are still very dissatisfied with their current order books. They are planning to cut production further.

### 2 The primary plastics market -standard plastics

The quotes for standard plastics in 2019 reached their lowest points of 2016. In a year-on-year comparison of the EUWID standard plastics price index, it can be seen that the average quotes from November 2019 (1,107 €/t) were 190 €/t lower than those of the previous year (1,297 €/t). In November 2019, the EUWID standard plastics price index had average quotes that were 33 €/t lower (1,107 €/t) than in the previous month (1,140 €/t), see Table 1. The PS prices have fallen especially markedly, by 60 €/t. The mood in the markets for standard plastics remains gloomy.

Since September 2018, the price for packaging PET, then at  $1,480 \ €/t$ , has fallen continuously to only  $1,085 \ €/t$  now. And this means that within the period, packaging PET has fallen by a total of  $395 \ €/t$ . In November 2019 the price for packaging PET is  $1,085 \ €/t$  and thus  $20 \ €/t$  lower than in the previous month  $(1,105 \ €/t)$ .

Prices in €/t	November 19	October 19	Sept. 19	August 19	July 2019
LDPE film grade	980- 1050	1010- 1080	1010- 1080	1050- 1120	1050- 1120
LLDPE film grade	990- 1080	1020- 1110	1020- 1110	1060- 1150	1060- 1150
HDPE injection	1090- 1150	1120- 1180	1120- 1180	1180- 1240	1180- 1240
moulding					
HDPE blow moulding	1110- 1170	1140- 1200	1140- 1200	1180- 1240	1180- 1240
PS crystal clear	1230- 1290	1290- 1350	1310- 1370	1250- 1310	1250- 1310
PS high impact	1330- 1390	1390- 1450	1410- 1470	1350- 1410	1350- 1410
PP homopolymer	1180- 1230	1210- 1260	1210- 1260	1290- 1340	1290- 1360
PP copolymer	1230- 1280	1260- 1310	1260- 1310	1340- 1390	1340- 1410
PVC tube grade	800- 840	810- 860	810- 860	830- 880	830- 880
PVC film/cables	840- 880	850- 900	850- 900	870- 920	870- 920
Average Price	1107 ± 174	1140 ± 186	1144 ± 191	1170 ± 182	1172 ± 184

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

#### 3 Secondary plastics markets in the plasticker price index

The plasticker internet platform, see <a href="http://plasticker.de">http://plasticker.de</a>, 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 the month of the report, in this case December 2019; they will not become definitive until early January. The two quotes stated for December 2019 below indicate only an interim situation, see the left-hand column in Table 2 and Table 3.

#### 3.1 plasticker: Standard plastics

In December 2019, the figures in Table 2 show price stability. At 489 €/t, the preview of the December quotes shows an average price that is 6 €/t higher than in the previous month (483 €/t). The December price index, 12.12.2019, shows subdued demand for plastic to date.

	Dec. <sup>6</sup> 19	Nov. 19	October 19	Sept. 19	Aug. 19	Nov. 18
HDPE regrind <sup>1</sup>	600	600	570	560	600	570
HDPE regranu- lates <sup>5</sup>	780	790	810	800	870	840
LDPE bale goods <sup>2</sup>	50*	80	180	240*	240*	230
LDPE regrind <sup>1</sup>	510	490	510	480	500	600
LDPE regranu- lates <sup>5</sup>	630	660	670	670	680	750
PP bale goods <sup>3</sup>	180*	190*	140*	290*	370	170
PP regrind <sup>1</sup>	570	570	550	570	570	560
PP regranulates <sup>5</sup>	810	820	820	830	880	890
PS regrind <sup>4</sup>	610	600	620	610*	630	640
PS regranulates⁵	820*	850	850	880	760	990
PVC_P regrind <sup>1</sup>	280*	290*	320*	370*	350*	330*
PVC_U regrind <sup>1</sup>	440*	420	360	380*	530*	450*
PET bale goods	190*	150*	190	160*	200	240*
PET regrind mixed colours	370	320	340	340	320	370
Average Price	(489)	483	495	513	536	544

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

### 3.2 plasticker: Technical plastics

In November 2019 the average price for technical plastics in plasticker is 1,188 €/t and thus 56 €/t higher than in the previous month (1,132 €/t), see. Table 3. A comparison of the average prices from November 2019 (1,188 €/t) with those of the previous year (1,365 €/t) shows a difference of 177 €/t. The November price index is showing hesitant demand for plastic. Tow plastics show price changes of more than ± 70 €/t: PC regranulates +210 €/t and POM regranulates +150 €/t. The quotes for ABS regranulates continue to fall and are now only at 1,090 €/t. Since October 2018, the prices for PC regranulates have been changing in leaps and bounds. After the price drop in the previous month, in November the price of PC regranulates rose again markedly. Since March 2019, PA 6.6 regranulates have been continuously losing value.

<sup>\*:</sup> 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)

At 1,223 €/t, the preview of the December quotes of 12.12.2019 shows an average price that is as much as 35 €/t higher than in the previous month (1,188 €/t). The December price index shows subdued demand for plastics that has improved somewhat over the previous month.

	Dec. <sup>6</sup> 19	Nov. 19	Oct. 19	Sept. 19	Aug. 19	Nov. 18
ABS regrind	580	610	600	610	660	670
ABS regranu- lates <sup>5</sup>	1150	1090	1120	1230	1120	1350
PC regrind	930	970	940	940	930	930
PC regranulates <sup>5</sup>	1750	1680	1470	1640	2020	2220
PBT regrind	540	520	450	510	540	490
PBT regranulates	1610	1570	1590	1570	1710	1840
PA 6 regrind	880	880	830	810	790	920
PA 6 regranu- lates <sup>5</sup>	1800	1760	1700	1760	1760	1970
PA 6.6 regrind	930	940	880	870	860	960
PA 6.6 regranu- lates <sup>5</sup>	2140	2060	2010	2120	2200	2460
POM regrind	810	620	590	590	580	690
POM regranu- lates <sup>5</sup>	1550	1550	1400	2050	1860	1880
Average Price	(1223)	1188	1132	1225	1253	1365

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

### 4 Evaluation of the secondary plastic markets

#### 4.1 Standard plastics

There have been signs of a longer Christmas break since the end of November. In November 2019, a comparison of the information for standard plastics from EUWID with plasticker shows that the quotes for plastic waste are falling in both price indices. Both price indices show a subdued demand for plastic. Sales of plastic recyclates have stalled in the last quarter. Warehouse stocks will be used up to the end of the year. Cheap virgin grades are exerting pressure on the use of recyclates. Often, the only way to sell films in return for additional payments.

What is noticeable about the price reductions in EUWID is that they differ from the lower to the upper price limit. The prices of post-industrial waste are falling in price much more (24 €/t) than post-consumer grades (9 €/t). In comparison with the previous month, in EUWID PE post-industrial waste is quoted by 15 €/t, PP post-industrial by 21 €/t and PS post-industrial by 33 €/t less than in the previous month. The price of PVC post-industrial fell by 33 €/t and PVC window frames by 17 €/t. The quotes for PE post-user fell by an average 9 €/t.

The mean EUWID quotes for PE post-user films are: LDPE shrink hoods natural 360 €/t, LDPE shrink hoods mixed colours 105 €/t, thin film transparent natural 193 €/t, thin film transparent coloured 5 €/t, LDPE agricultural film -35 €/t, commercial mixed film (90/10) 80 €/t and commercial mixed film (80/20) 40 €/t.

Exports of plastic waste are a special subject. International trade is thus setting the valid prices. Moreover, it is also defining the grades required. After sharp drops in trade, exports to Malaysia, Indonesia and Turkey are now cited. Exports to eastern European countries are also reported.

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

### 4.2 PET Recycling

PET recyclers are starting their winter break early this year. PET recycling continues to be under pressure: although falling bottle prices are pleasing, the price falls for virgin grade are also impacting the recyclates. Warehouse stocks of used beverage bottles are being used up. The domestic supply of used beverage bottles falls markedly in November and December; recyclers therefore buy them from neighbouring countries. In comparison to the previous month, the November quotes for used PET returnable bottles are 5 €/t lower for PET clear, 5 €/t lower for PET mixed and 5 €/t lower for PET mixed, see the EUWID price index for used PET 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 <a href="https://www.euwid.de">www.euwid.de</a>, or in EUWID Plastics <a href="https://www.euwid-kunststoff.de">www.euwid-kunststoff.de</a>. 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 <a href="www.plasticker.de">www.plasticker.de</a>. 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

Bonn, Monday, 6. January 2020 byse

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