1 General economy with reference to the plastics industry

In the current circunstances, dominated by protective measures against the further spread of the coronavirus, it is difficult to write about the plastic markets. The markets are characterised by individual agreements that mostly do not reveal a valid overall picture.

However, as the pricing from the previous month is still largely valid in March, the prices from February 2020 are given conditionally. There is a marked surplus in the markets for new plastics. Furthermore, the low crude oil prices are pulling down the prices for precursor products on the one hand, and the plastic quotes on the other.

2 The primary plastics market

2.1 Standard plastics

In February 2020 the standard plastics were quoted 27 \in /t lower than in the previous month, see Table 1. In a year-on-year comparison, it can be seen that the average quotes from February 2020 (1,070 \in /t) were 142 \in /t lower than those of the previous year (1,212 \in /t).

The mood in the markets for standard plastics remains gloomy. Whereas quotes for LDPE are stable, the price of HDPE has fallen by 100 \in /t. PP is following this trend, which is quoting at 50 \in /t lower on average. PVC remains unchanged, but PS actually underwent an average price rise of 35 \in /t.

After the price collapse for packaging PET was temporarily halted in January, it continued in February. Packaging PET was quoted $10 \notin /t$ lower in February than in the previous month. Packaging PET is now quoted on average at 1,060 \notin /t .

Prices in €/t	February 2020	January 2020	Dec. 19	Nov. 19	Oct. 19
LDPE film grade	970- 1050	980- 1050	980- 1050	980- 1050	1010- 1080
LLDPE film grade	990- 1080	990- 1080	990- 1080	990- 1080	1020- 1110
HDPE injection moulding	990- 1050	1090- 1150	1090- 1150	1090- 1150	1120- 1180
HDPE blow moulding	1010- 1070	1110- 1170	1110- 1170	1110- 1170	1140- 1200
PS crystal clear	1220- 1270	1180- 1240	1180- 1240	1230- 1290	1290- 1350
PS high impact	1320- 1370	1280- 1340	1280- 1340	1330- 1390	1390- 1450
PP homopolymer	1130- 1180	1180- 1230	1180- 1230	1180- 1230	1210- 1260
PP copolymer	1180- 1230	1230- 1280	1230- 1280	1230- 1280	1260- 1310
PVC tube grade	800- 840	800- 840	800- 840	800- 840	810-860
PVC film/cables	840- 880	840- 880	840-880	840- 880	850-900
Average Price	1070 ± 158	1097 ± 162	1097 ± 162	1107 ± 174	1140 ± 186

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

2.2 Technical plastics

There was another fall in the price of technical plastics. From December 2019 (2,407 \in /t) to February 2020 (2,327 \in /t), technical plastics fell by 80 \in /t, see Table 2. The average price in February 2020 (2,327 \in /t) was 523 \in /t lower than that of February in the previous year (2,850 \in /t).

Price falls were recorded for PMMA by -100 \in /t, PC by -175 \in /t, PA 6 by -50 \in /t, and PA 66 by 225 \in /t. There were no price changes for POM. And ABS actually recorded an average price rise of 40 \in /t.

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Prices in €/t	February 2020	December 2019	October 2019	August 2019
PMMA crystal clear	2900 - 3100	3000 - 3200	3050 - 3250	3100 – 3300
ABS natural	1550 – 1600	1510 – 1560	1610 - 1660	1610 – 1660
ABS w/b	1650 – 1700	1610 - 1660	1710 – 1760	1710 – 1760
ABS coloured	2250 - 2400	2210 - 2360	2310 - 2460	2310 – 2460
PC crystal clear	2300 - 2500	2450 - 2700	2550 - 2850	2650 – 2950
PC GF-reinforced	2500 - 2700	2650 - 2900	2750 - 3050	2850 – 3150
POM natural	1850 – 1950	1850 – 1950	1900 – 2000	1900 – 2000
PA 6 natural/black	1850 – 2000	1900 - 2050	2000 - 2200	2050 – 2250
PA 6 GF-reinforced	1950 – 2000	2000 - 2050	2100 – 2150	2150 – 2200
PA 66 natural	3150 – 3250	3350 - 3500	3550 - 3700	3750 – 3950
PA 66 GF-reinforced	3000 - 3050	3200 - 3300	3400 - 3500	3600 - 3700
Average Price	2327	2407	2523	2594

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

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 March 2020; they will not become definitive until early February. The two quotes stated for February 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 have fallen by an average 15 €/t in comparison to the previous month, see Table 3. The average price for February 2020 (475 €/t) was 34 €/t below that of the previous year (509 €/t). The following price changes were more than ±40 €/t: PP bale goods +60 €/t, PP regranulates +80 €/t, PS regrind -60 €/t, PS regranulates -90 €/t and PVC_U -90 €/t. The February price index records subdued demand for plastic. Lowest points for regranulates: HDPE regranulates at 730 €/t, LDPE regrind at 470 €/t, LDPE regranulates at 600 €/t and PS regranulates at 570 €/t have reached 5-year lows.

The information in Table 3 reveals price stability for March 2020, too. At 478 \in /t, the preview of the March quotes shows an average price that is very similar to that of the previous month (475 \in /t). The March price index, 13.03.2020, shows subdued demand for plastic to date.

	March ⁶ 20	Feb. 20	Jan. 20	Dec. 19	Nov. 19	Feb. 19
HDPE regrind ¹	550	550	570	600	600	540
HDPE regranu- lates⁵	740	730	750	820	790	840
LDPE bale goods ²	220*	160*	160*	90	80	180
LDPE regrind ¹	490	470	480	510	490	560*
LDPE regranu- lates ⁵	800	600	600	680	660	690
PP bale goods ³	190*	240*	180*	150	190*	220
PP regrind ¹	540	530	560	570	570	560
PP regranulates ⁵	880	870	790	790	820	830
PS regrind ⁴	610	570	630*	600	600	600

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

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PS regranulates ⁵	750	750	840	810	850	900
PVC_P regrind ¹	210*	200*	290*	260*	290*	250*
PVC_U regrind ¹	360*	480	510*	460*	420	390*
PET bale goods	250*	170*	130*	210*	150*	190
PET regrind mixed colours	300	330	370	400	340	380
Average Price	(478)	475	490	496	489	509

*: 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

In February 2020 the average price for technical plastics in plasticker is $1,202 \notin/t$ and thus 34 \notin/t higher than in the previous month $(1,168 \notin/t)$, see. Table 4. A comparison of the average prices from February 2020 $(1,202 \notin/t)$ with those of the previous year $(1,339 \notin/t)$ shows a difference of $137 \notin/t$. The February price index records subdued demand for plastic. These plastics show price changes of more than $\pm 70 \notin/t$: ABS regranulates $-100 \notin/t$, PC regranulates $+120 \notin/t$, PA 6 regrind $+320 \notin/t$ and POM regranulates $+150 \notin/t$.

At 1,226 \in /t, the preview of the March quotes of 13.03.2020 shows an average price that is slightly higher than in the previous month (1,202 \in /t). The March price index is showing subdued demand for plastic.

	March ⁶ 20	Feb. 20	Jan. 20	Dec. 19	Nov. 19	Feb. 19
ABS regrind	630	630	620	600	610	630
ABS regranu- lates ⁵	1370	1380	1480	1250	1090	1200
PC regrind	890	880	890	890	970	970
PC regranulates ⁵	1640	1650	1530	1820	1680	2000
PBT regrind	470	460	480	510	520	550
PBT regranulates	1640	1540	1570	1600	1570	1810
PA 6 regrind	870	860	840	880	880	900
PA 6 regranu- lates ⁵	1830	1740	1750	1830	1760	2030
PA 6.6 regrind	910	890	880	920	940	910
PA 6.6 regranu- lates ⁵	2150	2120	2150	2200	2060	2260
POM regrind	560	680	680	710	620	690
POM regranu- lates ⁵	1750	1590	1440	1510	1550	2120
Average Price	(1226)	1202	1168	1227	1188	1339

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

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

Both price indices, EUWID and plasticker, show subdued demand for waste plastics. The current market trends for falling quotes for standard plastics are shown well in the price index in plasticker. In EUWID, we see this trend only in the falling quotes for PE post user film wastes.

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The EUWID price index for waste plastic February 2020 showed the following average EUWID quotes for PE post user films: LDPE shrink hoods natural $350 \notin t$, LDPE shrink hoods mixed colours $90 \notin t$, thin film transparent natural $160 \notin t$, thin film transparent coloured $5 \notin t$, LDPE agricultural film $-35 \notin t$, commercial mixed film (90/10) $65 \notin t$ and commercial mixed film (80/20) $33 \notin t$. The quotes for PE, PP, PVC and PS production waste are unchanged.

4.2 PET Recycling

PET recycling is suffering from the pressure of falling prices for virgin grades. There is strong demand for regrinds and regranulates. In addition to the food area, demand from the non-food sector is also rising. A trend is developing where the amount of recyclates used in products is to be increased, both in the food and non-food sectors. As a result, increasing the proportion of recyclates places more demands on the quality of the regrinds and recyclates.

In February, which is usually a weak month for volumes of used PET bottles, supply is estimated to be largely satisfactory. But recyclers are complaining that the prices of used deposit bottles are much too high. It will be interesting to see how private consumption will influence the consumption of drinks during the coronavirus days.

The February quotes for used PET deposit bottles remain largely unchanged in comparison with those of the previous month.

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-kunststoff.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

Bonn, Monday, 20. April 2020 byse Dr Thomas Probst,