

bvse market report: plastics, April 2022

1 News from us

The 24th International Conference on Plastic Recycling 2022 will be held at the Hotel Crowne Plaza Düsseldorf – Neuss on 28/29 June 2022. The motto of the International Conference on Plastic Recycling is “Plastic Recycling Safeguards Raw Materials”. And this year, there is a full programme of events with parallel workshops on both days of the conference. This time, our highlight - the BBQ - will also be revived. Finally, there is an exhibitors’ forum that will provide an opportunity to find out about techniques for plastic recycling on both days of the conference.

The International Conference on Plastic Recycling starts with the Central Forum. At the Central Forum, which will deal with the EU’s plastics strategy under the heading “Implementation of the European Plastics Strategy in Germany”, there will be discussions involving Parliamentary State Secretary Dr. Bettina Hoffmann, Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection; Gunda Rachut, Central Agency Packaging Registry; Dr. Bettina Rechenberg, German Environment Agency; Johannes Walter, (Special Working Group to Strengthen the Use of Recyclates (RESAG)) Brandenburg; Dr. Martin Engelmann, Chamber of Industry and Dr. Herbert Snell, bvse e.V.

And finally, the two workshops will take place. In one workshop, the very different collecting and sorting systems in the Netherlands, Denmark and Sweden will be examined. In the other workshop, this is the BKV workshop, “Routes to more Plastic Recycling- Funding Instruments and Technologies” will be discussed.

On 29 June, the conference will continue, once again with two parallel events; firstly, the public session of the Working Group on International Plastics Markets with four presentations and a podium discussion and, secondly, the third workshop on “Recycling-Friendly Product Design”. You can register online at <https://altkunststofftag.bvse.de/anmeldung>.

2 The general economy

Results from the ifo economic surveys in March 2022, the ifo business climate index Germany, are now available, see <https://www.ifo.de/node/68645>. The war in Ukraine has caused the ifo business climate index to plummet. The mood in German board rooms has nosedived. The ifo business climate index fell to 90.8 points in March, following on from 98.5 points in February. The reason for this was a historic collapse in the expectations of 13.3 points, which surpassed the fall at the start of the coronavirus crisis in March 2020 (11.8 points). The companies also assess their current situation as worse. However, the fall was comparatively moderate (1.6 points). Companies in Germany are expecting hard times.

In the manufacturing sector, the index has fallen further than ever. The same is true for companies’ expectations. They flipped from optimism to clear pessimism. Moreover, the companies now assess their business prospects as extremely uncertain. And assessments of the current situation are getting worse.

2 Primary markets - standard plastics

Out of the frying pan and into the fire - from the pandemic and into the war in Ukraine. International plastics markets are in a state of upheaval. In its editions since 28 February 2022, KI Plastics Information Europe has been continuously reporting on the effects of the war in Ukraine on plastics markets, see <https://www.kiweb.de/>. Supply shortages are driving prices, see Fig. 1. In addition, the transport links by ship and rail from the People’s Republic of China to Europe have become more difficult or impossible. There is a shortage of means of transport on water and land in Europe and all over the world. The shortage of plastics and the high prices for transport, logistics, energy and raw materials are a tremendous burden on plastics manufacturers and processors. The price rises are being gradually passed on to

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consumers. And this spurs inflation on even more; in fact, the spectre of stagflation has reared its head.

Prices for plastics are extremely volatile. For processors, the availability of plastics is much more important than prices. In March 2022 the EUWID average price of 2,035€/t was 110 €/t higher than in the previous month (1,925 €/t), see Table 1. If the price trend continues, all standard plastics will soon be quoted with average prices of more than 2,000 €/t. In a year-on-year comparison, it can be seen that the average quotes from March 2022 (2,035 €/t) were 329 €/t higher than those of the previous year (1,706 €/t), see EUWID, www.euwid-recycling.de. All quotes rose by an average 100 €/t.

PET: The uncertainties in the plastics markets can also be seen in PET. Prices are volatile. Demand for PET is much greater than supply. More shortages are expected. The previous months' policy of managing the shortages is being continued. In March 2022 packaging PET was quoted on average at 1,840 €/t, see <https://www.kiweb.de/>.

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

| Prices in €/t | March 2022 | Feb. 2022 | Jan. 2022 | Dec. 2021 | Nov. 2021 |
|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| LDPE film grade | 1950- 2100 | 1850- 2000 | 1900- 2050 | 1900- 2050 | 1900- 2050 |
| LLDPE film grade | 1900- 2050 | 1800- 1950 | 1850- 2000 | 1850- 2000 | 1850- 2000 |
| HDPE injection moulding | 1700- 1900 | 1550- 1750 | 1600- 1800 | 1700- 1900 | 1700- 1900 |
| HDPE blow moulding | 1650- 1850 | 1500- 1700 | 1550- 1750 | 1650- 1850 | 1650- 1850 |
| PS crystal clear | 2150- 2250 | 2050- 2150 | 2150- 2250 | 2020- 2120 | 2000- 2100 |
| PS high impact | 2200- 2300 | 2100- 2200 | 2200- 2300 | 2100- 2200 | 2100- 2200 |
| PP homopolymer | 2150- 2350 | 2050- 2250 | 2100- 2300 | 2100- 2300 | 2100- 2300 |
| PP copolymer | 2200- 2400 | 2100- 2300 | 2150- 2350 | 2150- 2350 | 2150- 2350 |
| PVC tube grade | 1800- 1900 | 1700- 1800 | 1680- 1780 | 1680- 1780 | 1680- 1780 |
| PVC film/cables | 1900- 2000 | 1800- 1900 | 1780- 1880 | 1780- 1880 | 1780- 1880 |
| Average Price | 2035 ± 213 | 1925 ± 227 | 1971 ± 247 | 1968 ± 203 | 1966 ± 202 |

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 April 2022; they will not become definitive until early May 2022. The two quotes stated for April 2022 below are only an interim situation, see the left-hand column in Table 2 and Table 3.

3.1 plasticker: Standard plastics

The shortage of plastics has resulted in much higher quotes in March. The price fall from January 2022 (717 €/t) to February 2022 (584 €/t) was fully compensated in March 2022 (717 €/t). The average price for March 2022 (717 €/t) was thus 133 €/t higher than that of the previous month (584 €/t), see Table 2. This average price (717 €/t) was 182 €/t above that of the previous year (535 €/t).

There were significant price rises of greater than ±40 €/t for: HDPE regrind 120 €/t, HDPE regranulates 150 €/t, LDPE regranulates 250 €/t, PP regrind 260 €/t, PP regranulates 520 €/t, PS regrind 270 €/t, PS regranulates 290 €/t and PET regrind mixed colours 40 €/t. Those price changes for which supply figures were too low (*) for statistical significance are not included here. Highs were recorded for LDPE regranulates at 1,070 €/t, PP regrind at 790 €/t and PS regrind at 880 €/t. The price index is characterised by adequate demand for plastic.

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The preview of the April quotes is surprising because of the fall in average quotes by 76 €/t to 641 €/t, see Table 2. The price index of 19.04.2022, shows satisfactory demand for plastic to date.

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

| | April ⁶ 22 | March 22 | Feb. 22 | Jan. 22 | Dec. 21 | March 21 |
|--------------------------------|-----------------------|------------|------------|------------|------------|------------|
| HDPE regrind ¹ | 650 | 710 | 590 | 750 | 600 | 580 |
| HDPE regranulates ⁵ | 1070 | 1100 | 950 | 1050 | 920 | 880 |
| LDPE bale goods ² | 260* | 400* | 120* | 470* | 350* | 160* |
| LDPE regrind ¹ | 630* | 650* | 430* | 480* | 470* | 490 |
| LDPE regranulates ⁵ | 890 | 1070 | 820 | 1020 | 850 | 640 |
| PP bale goods ³ | 1090* | 380* | 250* | - | 310* | 360* |
| PP regrind ¹ | 600 | 790 | 530 | 650* | 630 | 530 |
| PP regranulates ⁵ | 1280 | 1490 | 970 | 1590 | 1400 | 850 |
| PS regrind ⁴ | 790* | 880* | 610 | 720* | 700* | 570 |
| PS regranulates ⁵ | 1260 | 1330 | 1040 | 1270 | 1160 | 920 |
| PVC_P regrind ¹ | 660* | 650* | 660* | 690* | 490* | 530* |
| PVC_U regrind ¹ | 0* | 0* | 500* | 630* | 480* | 520* |
| PET bale goods | 80* | 200* | 360* | 0* | 70* | 80* |
| PET regrind mixed colours | 360 | 390 | 350 | 720 | 480 | 380 |
| Average Price | (641) | 717 | 584 | 717 | 636 | 535 |

*: 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 March 2022, there was an average price of 2,029 €/t, which was 306 €/t higher than that of the previous month (1,723 €/t), see Table 3. The average price for March 2022 (2,029 €/t) was 664 €/t above that of the previous year (1,365 €/t).

These plastics show significant price changes of more than ± 70 €/t: ABS regrind +160 €/t, ABS regranulates +520 €/t, PC regrind +160 €/t, PC regranulates +350 €/t, PBT regrind +220 €/t, PBT regranulates +610 €/t, PA 6 regranulates +270 €/t, PA 6.6 regrind +290 €/t, PA 6.6 regranulates +1,060 €/t, POM regrind +380 €/t and POM regranulates -300 €/t. There were highs for ABS regranulates at 2,500 €/t, PBT regranulates at 2,940 €/t, PA 6 regranulates at 2,720 €/t, PA 6.6 regrind at 1,250 €/t, PA 6.6 regranulates at 3,870 €/t and POM regrind at 1,140 €/t. The price index shows an adequate demand for plastic.

The probable average price in April 2022 (1,976 €/t) is thus 57 €/t lower than in the previous month (2,029 €/t). The price index of 21.04.2022 shows satisfactory demand for plastic.

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

| | April ⁶ 22 | March 22 | February 22 | Jan. 22 | Dec. 21 | March 21 |
|-------------------------------|-----------------------|----------|-------------|---------|---------|----------|
| ABS regrind | 1020* | 970 | 810 | 1060 | 950 | 580 |
| ABS regranulates ⁵ | 2570 | 2500 | 1980 | 2330 | 2160 | 1810 |
| PC regrind | 1070* | 1240* | 1080 | 1240 | 1060 | 840 |
| PC regranulates ⁵ | 2990 | 3010 | 2640 | 3180 | 3100 | 1970 |

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|----------------------------------|---------------|-------------|-------------|-------------|-------------|-------------|
| PBT regrind | 520* | 810* | 590 | 760* | 750* | 470 |
| PBT regranulates | 2790 | 2940 | 2330 | 2690 | 2170 | 1920 |
| PA 6 regrind | 980* | 860* | 930 | 960* | 1000 | 870 |
| PA 6 regranulates ⁵ | 2680 | 2720 | 2450 | 2600 | 2400 | 2070 |
| PA 6.6 regrind | 960 | 1250* | 960 | 1110* | 1200 | 940 |
| PA 6.6 regranulates ⁵ | 4030 | 3870 | 2810 | 3320 | 3250 | 2560 |
| POM regrind | 790* | 1140* | 760 | 1060* | 800 | 580 |
| POM regranulates ⁵ | 3310 | 3040 | 3340 | 3430 | 2840 | 1770 |
| Average Price | (1976) | 2029 | 1723 | 1978 | 1807 | 1365 |

*: 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

Secondary plastics cannot compensate for the excessive shortages in the supply of virgin grade. Supply shortages can only be alleviated in some areas. As with virgin grade, secondary plastics are suffering from inflation in transport and energy. Furthermore, plastic wastes are becoming more expensive, which are repeatedly achieving price highs. The shortage of plastics and the high prices for transport, logistics, energy and raw materials are a tremendous burden on plastics recyclers.

4.1 Plastic wastes

In the March quotes, price rises for all plastic wastes, both standard plastics and technical plastics, were clear. The quotes for standard plastics in EUWID and plasticker in March recorded clear price rises. Demand for plastic wastes and recyclates was reported as high by EUWID, whereas plasticker assessed it as subdued.

In EUWID we see clear price rises for all plastic grades. This results in highly dedicated pricing, which can be seen in the different quotes for the upper and lower margin, see www.euwid-recycling.de. Much higher prices are paid for good grades than for minimum requirement grades, see EUWID price index for waste plastic Germany. Bale goods of PE post user plastic wastes are quoted at an average 21 €/t higher, averaged across all plastic types. The two quotes in the PE film grade production wastes were quoted at 18 €/t higher and the two PP film grade production wastes at 30 €/t higher.

The changed quotes for PE post-user wastes as bale goods in EUWID were: LDPE shrink hoods natural 560-630 €/t, LDPE shrink hoods mixed colours 200-290 €/t, film transparent natural <70 µm 450-500 €/t, film transparent coloured <70 µm 170-200 €/t, LDPE agricultural film b/w 0 to 25 €/t, commercial mixed film (90/10) 270-330 €/t, commercial mixed film (80/20) 220-260 €/t, HDPE blow-moulded bodies coloured 300-410 €/t.

4.2 Recyclates

For processors, the availability of plastics is much more important than recyclate prices. The demand for recyclates exceeded the supply by far. The boom in the demand for recyclates continues unabated. Plastics recyclers report that their recyclates are sold out months in advance. Prices for regranulates are still reaching those for virgin grade, or are even exceeding them. Prices for plastics are extremely volatile. Plastics recyclers are complaining about a shortage of processing input. Plastic wastes have never been in such demand as now.

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The regrinds from PE production wastes are quoted at an average 33 €/t higher and those from PP production wastes at 18 €/t higher, see EUWID price index for waste plastics Germany. The PS regrinds are quoted at an average 39 €/t higher and the PVC regrinds 31 €/t higher.

The changed quotes for PP production wastes as regrinds in EUWID were: homopolymers mixed colours 500-650 €/t, homopolymers natural 650-820 €/t, copolymers mixed colours 530-650 €/t and copolymers natural 650-820 €/t.

4.3 PET Recycling

The shortage of PET is continuing to drive the prices both for virgin grade and for recyclates. The virgin grade prices are being surpassed by the prices for regrinds (flakes) and regranulates. At the peak, up to 2,300 €/t are charged for food-safe regranulates; food-safe clear flakes are quoted at up to 1,900 €/t. Bottle prices are rising; the prices for used PET single-use bottles changed in March as follows: PET transparent +40 €/t, PET mixed +35 €/t, and PET coloured +20 €/t. Detailed monthly reports on the PET prices for virgin grade and used bottles can be found in EUWID and KI 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, or in EUWID Plastics www.euwid-recycling.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