



## LIST PRICE DECLINE, SPOT PRICE STABILIZATION IN OCTOBER

WEEK 39, 2022

### GENERAL OVERVIEW

The prices of “commodity” polymers were affected by the following factors last week:

- **BRENT oil price** (30.09.2022) **98.49** USD/barrel, decreasing prices compared to the end of the previous week
- **NAPHTHA** European; (30.09.2022) **625.65** USD/t, decreasing prices compared to the end of the previous week,
- **Dutch TTF Gas Futures** (30.09.2022) **186.245** EUR/Mwh, stagnant prices compared to the end of the previous week,
- **EUR/USD** (30.09.2022): **0.97** EURO stagnant compared to the previous week,
- **October contract monomer prices:**
  - **Ethylene (C2)** contract price **-45€/t (1,260 EUR/t)**,
  - **Propylene (C3)** contract price **-50 EUR/t (1,180 EUR / t)**,
  - **Styrene monomer (SM)** contract price **+9 EUR/t (1,553 EUR/t)**,
- **Polymer capacity news**
  - Persistent production problems
    - Due to **SABIC** Wilton feedstock supply problems, the FM lasts longer (400 kt/year LDPE capacity), but production continues
    - **INEOS** FM, mLLDPE (Cologne, 230 kt/year capacity)
    - **Karpatneftekhim** (Kalush, unplanned shutdown, HDPE 110 kt/year capacity)
  - Ongoing maintenance, downtime
    - **LyondellBasell** maintenance (Brindisi 420 kt/year PP capacity) restart in January (2023) at the earliest
    - Rompetrol LDPE plant unplanned shutdown (60 kt/year capacity) expected restart in the second half of October.
    - Maintenance of PETKIM polyethylene factories has begun (310 kt/year LDPE and 96 kt/year HDPE capacity)
    - Shell Energy and Chemicals Park Rheinland – Nord unplanned refinery shutdown due to low water levels in the Rhine.
    - Unplanned shutdown of **LyondellBasell's** cracker in Berre (470 kt/year ethylene, 225 kt/year propylene capacity), expected restart in March 2023
    - **Covestro FM Styrene Monomer** production (Leverkusen, 640 kt/year capacity)
  - **Other market news**
    - Stagnant polymer prices,

- Slightly increasing demand,
- Imported polymers are losing their competitiveness due to the strengthening dollar.
- Negative cash margin for non-integrated European polymer producers.
- Some Western European manufacturers reduce the capacity of polymer plants due to high energy prices and energy costs that are difficult to pass on. In many cases, they are shut down.
- Strike at Exxon Mobil refinery in France
- Natural gas and electricity prices in Europe are slowly dropping after the price peaks of the past week.
- Expect a „K“ effect in October: demand traditionally falls due to the K fair, converters hunt for good offers at the fair.
- Plastic converters are preparing to reduce production due to low demand and rising energy prices

Spot prices have not fallen any further in the past week. It seems the spot prices have reached a their lowest point. Demand showed mixed picture. In the area of food packaging materials, there was a slight upturn in the last week. While the decline in demand was more typical in the construction industry. The only exception to this was the insulating material, especially those manufacturers who were not stuck with their old, expensively purchased inventories were able to sell well.

For converters, the issue of energy prices is now the most important thing. Due to the high energy cost ratio, the competitiveness and the finished product price do not depend primarily on the polymer prices, but also on the energy prices. Enforcing the increased costs is difficult, moreover, the demand is also uncertain, the orders are very short-term. Therefore, most converters develop contingency plans to survive a period of high energy prices. Reduced number of shifts, shorter work week, longer winter shutdown. It seems almost certain that the usual December-January shutdowns will be longer than usual. Converters shut down earlier and restart later.

Larger polymer manufacturers are acting in a similar way. Due to energy costs that are difficult to enforce, falling demand and energy supply uncertainty, some crackers and polymer plants will not start up again until the spring of 2023 after maintenance.

The October contracted olefin monomer prices decreased by €50 for propylene (C3) and €45 for ethylene (C2). Nevertheless, the majority of polymer producers want to implement a roll-over. There are several reasons for this, one being high energy costs and the other being weak demand. Any possible price reduction is unlikely to generate additional demand in the months ahead. However, due to the still typical general oversupply and market demand uncertainty, the October list prices and formula prices will follow the monomer price reduction. Spot prices seem to have bottomed out and are not going down any further. In fact, this means that the price bands at the end of September will continue to roll and the price bands will narrow. Overall, this points towards the stabilization of polymer prices in October.

Some Western European polymer manufacturers have announced the introduction of an energy surcharge. However, the success of this is highly questionable. The reason for this is that, on the one hand, there is an oversupply on the market, and on the other hand, the previous attempts have clearly been unsuccessful. Large multi-site polymer manufacturers tend to operate with differential energy and freight costs. They try to supply to their customers from sites with lower costs, and in plants with more expensive production costs, they try to reduce or even stop production.

The €9 increase of styrene monomer, is practically a roll-over, with the forecast for the future. Despite the SM roll-over, however, a decrease in polystyrene prices is expected. This is due to weak demand, a significant PS/SM spread, and the low price of potentially substitute polymers (PP).

## **POLYETHYLENE GRADES**

**LDPE** prices were in a range of **1,350-1,550 €/t** in the last week of September. The price range did not change, the typical trading range was €1,350-1,450/t. According to the packaging material manufacturers, the orders arrived 2 weeks late, but it is clear that a shorter and weaker autumn season is expected. Due to the strengthening of the dollar, in the case of imported products from outside Europe, traders have already predicted a price increase for newly arriving shipments. The European manufacturers are basically preparing for a roll-over, but in the case of contract prices, a smaller price drop following monomer is possible. For this reason, in the first week of October we expect prices in a range of **1,350-1,500 €/t**.

The MFI 0.6-1, transparent **rLDPE** resin price band moved downwards in the last week. The typical price range in the MFI 0.6-1 segment was **€1,000-1,250/t**. The price drop is due to weakening demand and falling waste prices. Due to the high energy costs, however, a temporary stoppage of some recyclers is expected even as early as October, so the decreasing supply can stop the further erosion of prices.

In the last week of September **HDPE prices** were in a range of **1,250-1,550 €/t** in Central Europe. Neither the price range nor the average prices have changed. A minor recovery in demand was experienced everywhere in Central Europe, primarily in the case of Film and BM grades. The reason for this is partly the actual increase in the number of orders, and partly the fear of possible price increases. The total price band and the typical transaction price band by HDPE grade in Central Europe were last week as follows:

- HDPE BM: 1,270-1,550 €/t, most transactions happened in a range of 1,270-1,340 €/t
- HDPE IM: 1,250-1,500 €/t, most transactions happened in a range of 1,250-1,320 €/t
- HDPE FILM: 1,280-1,520 €/t, most transactions happened in a range of 1,280-1,350 €/t

With regard to spot prices (bottom of the price range), we do not expect any change, however, in the case of list and contract prices, a price decrease of around €50 is likely. As a result, we expect the following price bands in the first week of October:

- HDPE BM: 1,270-1,500 €/t,
- HDPE IM: 1,250-1,450 €/t,
- HDPE FILM: 1,280-1,500 €/t

In the last week of September **HDPE-100 (Black & colored) prices** were in a range of **1,600-1,720 €/t**. Prices have not changed from the previous week. The construction season ends in October, and signs of a drop in demand were already visible in September. Prices in October are likely to follow the decline in ethylene monomer prices. We expect **October prices** to be in a range of **€1,550-1,650/t**

In the last week of September, **LLDPE C4** prices were in a range of **€ 1,100-1,350/t**. Prices are down compared to the previous week. Although the European producers wanted to achieve a price increase, the chance of this disappeared together with the falling ethylene monomer price. For the

time being, there is no visible effect of the strengthening of the dollar on prices either, as there are significant import items in European warehouses. In the week ahead, we expect prices to be in a range of **1,100-1,300** €/t.

In the last week of September, **(m)LLDPE (C6)** prices ranged from **1,350 to 1,660 €/t**. The price of LLDPE C6 was in the price range of **1,350-1,550** €/t, while that of **mLLDPE** was in the price range of **1,450-1,660** €/t. Prices have not changed from the previous week. There was a slight recovery in demand, primarily for metallocene grades, due to the revival of the food industry packaging material market. In October, in the case of list prices, we expect a smaller polymer price decrease, following the ethylene monomer price decrease, compared to the prices at the beginning of September.

The table below shows the typical prices of the last week (total truckload 20-22.5 t):

Grade name	Typical polymer price ranges in the last week of September 2022, in Central Europe (€/t)	Expected polymer price bands in the first week of October 2022, in Central Europe (€/t)
HDPE BM	1 270 - 1 550	1 270 - 1 500
HDPE Film	1 280 - 1 520	1 280 - 1 500
HDPE IM	1 250 - 1 500	1 250 - 1 450
HDPE Pipe (100)	1 600 - 1 720	1 550 - 1 650
LDPE Film	1 350 - 1 550	1 350 - 1 500
LDPE GP	1 350 - 1 500	1 350 - 1 500
rLDPE	1 050 - 1 300	1 000 - 1 250
LLDPE C4	1 100 - 1 350	1 100 - 1 300
mLLDPE (C6)	1 350 - 1 660	1 350 - 1 600

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## POLYPROPYLENE GRADES

In the last week of September, **PPH Raffia** prices were in the range of **€1,100-1,350/t**. Prices have not changed from the previous week. The cheapest (spot) prices are already in the negative spread range. This is probably the reason why the Greek manufacturer already tried to raise prices at the end of September compared to the prices at the beginning of September. All of this indicates that the price level of around €1,100/t represents the bottom of the price range with the current energy prices and dollar exchange rate, we do not expect a price drop here. However, the situation is different with the contract and list prices, in which case the falling monomer prices may force a subsequent monomer price decrease compared to the prices at the beginning of September. **In the first week of October**, we expect a price range of **€1,100-1,280/t**.

In the last week of September, the prices of **PPH IM** non-specialty grades with low and medium melt flow index were in a range of **1,100-1,300 €/t** and the prices of PPH IM with high melt flow index were in a range of **1,240- 1,315 €/t**. Prices have not changed from the previous week. Demand is not strong, but it is higher than in mid-September. Converters expect a short fall season. They buy little and carefully, and this will probably be the case in October, regardless of the price changes. It is therefore unlikely that further price reductions will occur in the case of the cheapest (spot) prices. However, in the case of list and contractual, price-formula prices, a price decrease following the price

change of propylene monomer compared to the prices at the beginning of September is likely. This is nothing but the realization of inter-month price movements at the list price level as well. **Prices for the beginning of October:** are expected to be in a range of **1,100-1,300 €/t**.

In the last week of September typical **PPC** prices were in a range of **1,270-1,450 €/t** in Central-Europe. The price range has not changed from the previous week. Demand is extremely weak for almost all applications. The autumn season has been shortened for some grades related to the construction industry. However, the cheapest prices did not drop any further. The months ahead will also be very weak in demand. However, due to production cuts and shutdowns, supply pressure from European products is decreasing. The decline in the prices of imported grades is hindered by the massive strengthening of the dollar. However, in the case of list and contract prices, we can expect a price decrease compared to the prices at the beginning of September. We expect the full **early October** price range to be **1,270-1,400 €/t**.

**rPP IM** demand remained weak over the past week. The cheapest prices continued to decrease compared to the previous week, primarily in the southern (SCE) region. Last week the price of re-granulates of good quality with a narrow MFI range (8-15, 15-20), with homogeneous color was in the range of **900-1,350 €/t**. The prices of grades with a higher flow index (MFI (25-35)) were in a range of **1,150-1,850€/t**. These have also decreased.

In the last week of September, **PPR** prices were in a range of **€ 1,340 - € 1,460/t**. Prices have not changed from the previous week. The months ahead will also be very weak in demand. Weak demand will affect all areas of use. We expect further price changes following the propylene monomer price drop in October. We expect October prices to be in a range of **1,320-1,410 €/t**.

The table below shows the typical prices of the last week (total truckload 20-22.5 t):

<b>Grade name</b>	<b>Typical polymer price ranges in the last week of September 2022, in Central Europe (€/t)</b>	<b>Expected polymer price bands in the first week of October 2022, in Central Europe (€/t)</b>
<b>PPC</b>	1 250 - 1 450	1 270 - 1 400
<b>PPH IM</b>	1 120 - 1 300	1 100 - 1 280
<b>PPH IM HMFR</b>	1 240 - 1 315	1 220 - 1 300
<b>rPP IM</b>	900 - 1 350	950 - 1 400
<b>PPH Raffia</b>	1 100 - 1 350	1 100 - 1 280
<b>PPR</b>	1 340 - 1 460	1 320 - 1 410

10/2/2022

## **POLYSTYRENE GRADES**

In the last week of September, typical **EPS (white)** prices were in a range of **€1,700-2,100/t**. The market showed a mixed picture. Those insulation board manufacturers who did not get stuck in expensive stocks were able to realize good sales, mainly in the central (MCE) and southern (SCE) regions. In Poland and the Czech Republic, demand is weaker than usual and not even. A small increase in SM does not induce an EPS price increase, or even a roll-over. Converters expect a clear price drop. Even the most expensive prices will likely fall below €2,000. We expect prices in **early October** to be in a range of **1,700-1,950 €/t**. This drop in prices makes it even more difficult for converters who have been stuck with stocks purchased at high prices.

In the last week of September, **GPPS** prices ranged from **1,800 to 1,870 EUR/t**. Typical **HIPS** prices were in a range of **1,900-1,970 EUR/t**. The price bands have not changed compared to the last week. A small increase in SM does not induce an PS price increase, or even a roll-over. Converters expect a clear price drop. The expected rate of price reduction is 3 digits compared to the beginning of September. This means nothing more than the legalization of the prices at the end of September. Thus, **GPPS** prices at the beginning of October are **1,800-1,850 €/t**; **HIPS** prices will be in a range of **1,850-1,950 €/t**

In the last week of September, natural **ABS** prices were in a range of **€2,300-2,750/t**. Prices have not changed compared to the previous week. Demand is weak and unpredictable. Probably due to the uncertainty and the realization of the demand that is still available, the European manufacturers implement a significant 3-digit price reduction compared to their list prices at the beginning of September, realizing the entire September price reduction. We expect early October prices to be in a range of **2,300-2,750 €/t**.

The table below shows the typical prices of the last week (total truckload 20-22.5 t):

<b>Grade name</b>	<b>Typical polymer price ranges in the last week of September 2022, in Central Europe (€/t)</b>	<b>Expected polymer price bands in the first week of October 2022, in Central Europe (€/t)</b>
<b>GPPS</b>	1 800 - 1 870	1 800 - 1 850
<b>HIPS</b>	1 900 - 1 970	1 850 - 1 950
<b>EPS</b>	1 750 - 2 100	1 700 - 1 950
<b>ABS (natural)</b>	2 300 - 2 750	2 300 - 2 750

10/2/2022