

BlueClover

All Things PP

Brainfood for the Plastics Industry

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Market Update

Plastics Feedstocks (Oil, Naphtha, Propane)

- Global polypropylene feedstock prices are lower the past two weeks, with a big drop in naphtha and propane pricing.
- Crude Oil is down 5% the past two weeks (after dropping 5% in the two weeks prior as well) . Today WTI crude oils is trading around \$73/barrel. While prices remain above the 2023 low point of \$66/barrel from March 2023, the momentum with crude seems to be to the downside.
- Naphtha prices (CIF Japan) are down 10% the past two weeks from a price \$670/mt on April 25th to \$600/mt on May 9th.
- Propane prices are lower by 13% the past two weeks to a spot price of 70 cents per gallon (cpg) in Mont Belvieu, TX..

Propylene

- In late March (PGP was trading 55cpp at that time) we guessed that physical PGP would trade into the 40s in April (which was the dominant market view) and reach the 30s level in the 2nd half of April (this was more of a stretch call). When we wrote our last report on April 25th physical PGP was 41cpp and we had assumed our call for PGP in the 30s in April was incorrect. Well on April 27th, physical PGP traded 38.75cpp so we ended up being right. We will take these victories because we know there will be plenty of defeats.
- Over the past two weeks physical PGP has dropped from 41cpp to 35cpp. PGP has been pushed down by the over supply of polypropylene which makes up over 50% of PGP demand. Also, but to a lesser degree, PGP has been pulled lower by propane pricing. With Mont Belvieu propane at 70cpg, the gross margin for a Gulf Coast PDH unit currently sits around 15cpp. These units averaged 10cpp in the 2nd half of 2022 when PP over-supply was compressing PDH margins.
- BlueClover had estimated April contract PGP to be down 12cpp but the contract PGP price for April ended up down 11cpp to settle at 47cpp. The PetroChem Wire April PGP calendar average was 41.276cpp. BlueClover is revising our estimate for May contract PGP from 40-43cpp to 39cpp. A settlement price of 39cpp is an 8cpp decrease from April. The May PGP month to date calendar average is around 35.5cpp.
- Physical PGP prices are in the lower bound of their historical range. Keep in mind as we wrote in our last report, physical PGP has already dropped 57% from its March high of 82cpp. If May contract PGP were to settle at 39cpp it would be within 13cpp of the five-year contract PGP low price point (26cpp) and would be about 50cpp from the five-year contract PGP high price point (89cpp). (See Trader Toolbox – Page 5) All of that being said, BlueClover still expects physical PGP to trade into the lower 30s with a remote chance of getting into the upper 20s over the next 60 days. Our estimate for June contract PGP is in the 35-37cpp range and July contract PGP is in the 33-35cpp range.

Polypropylene

- PP prices have been coming off in May again. Widespec pricing and export pricing are both down slightly from their end of March pricing levels. Prime pricing is lower considerably with contract PGP dropping 11cpp in April and possibly another 8cpp in May.
- PP Producers have had a difficult time getting any return on their widespec and export product when compared to PGP pricing. For producers that are integrated with a PDH or a steam cracker that produces PGP, their margins for selling PP are not as bad. But producers that need to buy merchant PGP for their PP reactors are a different story. The PP widespec and export market have been moving lower and while physical propylene is trying to catch up, it's still significantly lagging in terms of price. Therefore, non-integrated PP producers need to sell this material at less than cost of production in many cases. BlueClover expects this to normalize a bit and for widespec PP to return to at least a few pennies above the contract PGP price in the June and July time frame.
- PP Inventories have continued to climb as PP production outpaces demand even with producers cutting back operating rates.
- BlueClover still feels there is a greater likelihood of PP prices sliding lower by 2-5cpp for widespec and 3 to 6pp for prime over the next 60 days.

Feedstock “Spot” Prices:

<u>Product</u>	<u>Location</u>	<u>Price as of May 9</u>	<u>Price as of April 25</u>	<u>Unit</u>
Brent Crude	North Sea, Europe	77.04	81.10	USD/barrel
WTI Crude	Cushing, OK	73.21	77.23	USD/barrel
Natural Gas	Henry Hub, LA	2.22	2.24	USD/MMBtu
Naphtha	C&F Japan	600	670	USD/mt
Ethane	Mont Belvieu, TX	19.875	21	Cents/Gal
Propane	Mont Belvieu, TX	70.375	80.5	Cents/Gal
Ethylene (Enterprise system)	Mont Belvieu, TX	18	19.625	Cents/Lb
PG Propylene (Enterprise)	Mont Belvieu, TX	35.5	41	Cents/Lb

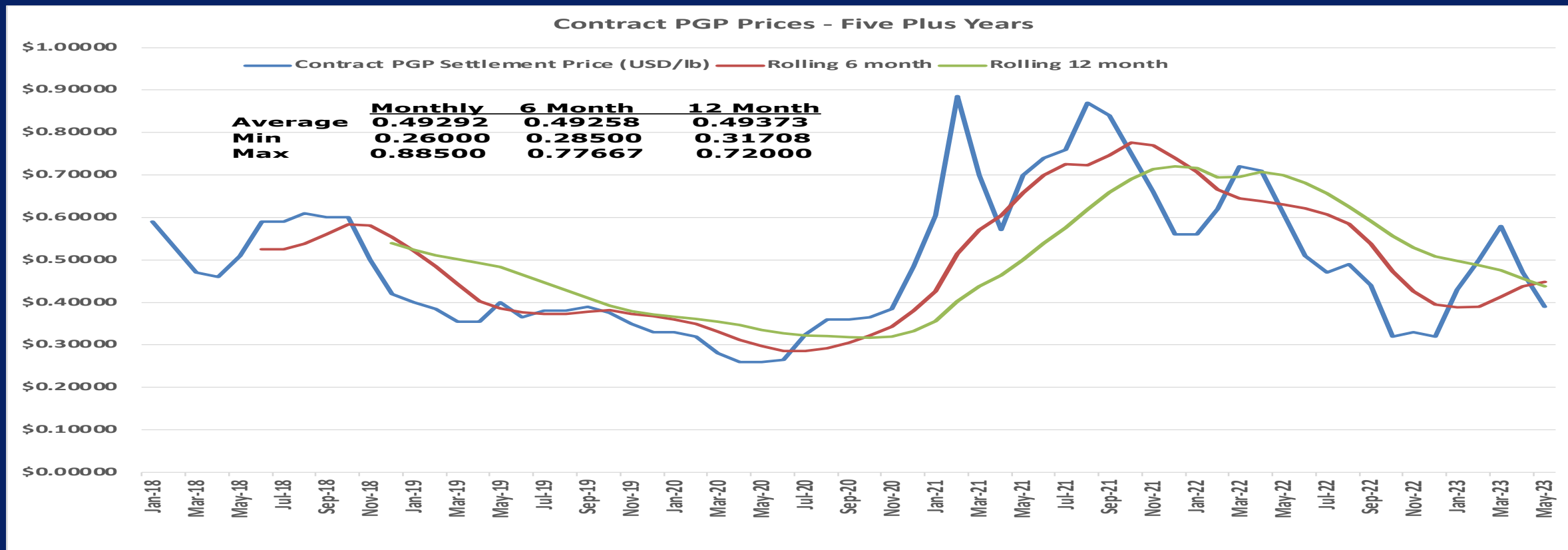
* Sources – CME, Bloomberg

Inventory

HERO GREEN™ (Post Consumer PP Repro)		
Grade	Description	Location
HG7BK1	7 melt HomoPP - Black	Midwest
HG3GR1	3 melt HomoPP - Grey	Midwest
HG16GR1	16 melt HomoPP - Grey	Midwest
HG22GR1	22 melt HomoPP - Grey (SOLD OUT)	Midwest
HG3GR3	3 melt CoPP 3.4 izod - Grey	Midwest
HG35GR3	35 melt CoPP 1.1 izod - Grey	Midwest
HERO GREEN™ (Post Consumer HDPE Repro)		
Grade	Description	Location
HG7GRPE	7 melt HDPE Grey - 0.94 - 0.954 density	Midwest



Trader Toolbox - Historical Contract PGP Pricing



The above graph is a five plus year historical look back at contract PGP pricing monthly (blue line), a rolling 6 month average (the red line) and a rolling 12 month average (the green line). We think its interesting that contract PGP pricing averaged 37cpp for all of 2019 when the PP market was long and crude pricing averaged \$57/barrel. Since 2019, there have been 3 world scale PP units built (Braskem, Heartland, and Exxon) and there is no way PP virgin demand kept up with that type of supply increase. Countering that is that crude oil is trading substantially higher around \$75/barrel today compared to \$55/barrel in 2019.

It's not difficult to propose a scenario in which contract PGP prices average between 35-37cpp for the next several months and possibly longer due to the increased supply of PP to hit the market. Historically speaking, this hypothetical is within reasonable ranges. But I do think that certain manufacturing and commodity inflation are now baked into the market so prices should average a little higher when stretched over longer time periods as compared to 2019 levels.



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