

Argus C5 and Hydrocarbon Resins

September 2025



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Executive Summary

Key developments

- Piperylenes**
- Demand remains weaker overall in China with domestic prices close to flat from August. Supply from the balance of Asia-Pacific for both domestic use and for exports to the west should increase with several upstream cracker and IED outages completed. Imports to the US continue at reduced volumes and should drop further with reduced domestic C5 HCR capacity. Europe continues to import smaller volumes of pips for tackifier production.
- DCPD**
- Global demand into UPR remains weaker, with global demand into HHCR marginally better. DCPD prices in China are higher this month with some speculative buying providing some price support at the lower price levels. UPR grade imports to the US continue to track well below levels seen several years ago with supply to meet weak demand coming from domestic production.
- Isoprene**
- Demand into IR was weaker again in China in September with demand tepid into SIS. Spot IPM pricing in China is slightly higher than later August. The end of August through October period will see several IED outages in China including Jinhai along with derivatives. In the balance of Asia-Pacific, a heavier IED turnaround schedule is complete with improved supply. Formula pricing for spot or quarterly exports from Asia-Pacific to the west has been stronger but will likely moderate very late in the year when balances should lengthen somewhat.
- Butadiene**
- Asia-Pacific spot pricing is slightly lower from end of August and was assessed on 12 September at \$1,080/t cfr NEA. The prevailing USGC monthly contract price for September is lower from August at 36.5¢/lb (\$805/t). The September European butadiene (BD) monthly contract price (MCP) is also lower from August at €835/t.
- C5 tackifiers**
- Demand remains tepid globally and with margins in China squeezed by feedstock costs and aggressive HHCR pricing. Chinese domestic demand for road marking grades is slightly better in September. Exporters to the US are seeing container freight costs higher over the last month, with rates to Europe in decline at a slower pace. Current tariffs on Chinese HCR exports to the US have stabilized until November with the latest bilateral trade discussions. Prices are increasing in the US/Europe.
- C9 tackifiers**
- Demand remains very weak in China along with construction activity and tire demand. Demand remains somewhat better overall in the west. Margins for Asia-Pacific exports to the west remain under pressure with pricing and container freight costs. Operating rates in China remain very low for many thermal grade producers. Pricing in China is flat in August for thermal grades and slightly lower for adhesive grades.
- HHCR**
- Capacity continues to grow in China with several more plant start-ups planned for the balance of 2025 through early 2027. Prices in China are flat in September from end-August amid some weakness in overall demand but with most plants in operation. Supplies remain more balanced from domestic producers in the US. Notwithstanding China, HHCR pricing remains slightly above that of adhesive grade C5 HCR in most markets. Prices in the west are on the rise after a longer period of stability.
- Natural rubber**
- TSR20 natural rubber (NR) futures on the SGX settled at \$1,748/t on 16 September, a slight decrease from prices earlier in the month which peaked at \$1,789/t on 5 September. Prices have averaged \$1,750/t month to date in September.
- SIS**
- Demand continues to be weaker on a global basis. Producer operating rates are reduced overall in the US with production volumes remaining closer to zero in Europe. Chinese SIS producers continue to run at reduced rates with lacklustre domestic and export demand. Baling/Sinopec, Jinhai and Ecisco have or will start up new capacity in China during the balance of this year, keeping pressure on sales margins. Jinhai will take an outage on existing SIS lines at month's end.
- SBS**
- Demand in footwear and several other sectors remains weaker in China, but with demand into asphalt slightly improved. Chinese SBS prices are decreasing in September. Western demand is decent exiting the summer season, with European exports to the US lower as US producers produce more product and see ongoing imports from Asia-Pacific. New capacity is scheduled to come online in China from Sinopec/Baling and Petrochina Guangxi before year's end, adding to surplus capacity in the market and keeping sales margins depressed for sellers.

Isoprene Outlook

- The fourth quarter of 2025 should see continued overall weakness for demand into SIS, weaker demand for isoprene into IR versus the first half of the year, and isoprene balances lengthening somewhat late in the year.
- Global IED capacity is expanding further in 2025-26 with new Chinese capacity. Some of this production will be from producers not fully integrated downstream to isoprene derivatives, creating more volume for merchant sale in the fourth quarter of 2025 and beyond.
- The US will continue to see IPM imports primarily from Korea, Taiwan, and possibly Brazil to meet demand requirements, most of which is destined for SIS production. US import tariffs on Chinese isoprene exports are likely to constrain this flow for the foreseeable future unless a low tariff resolution to the current trade/tariff war between the two countries is found or US retaliatory tariffs against the other isoprene exporters to the US make Chinese imports more competitive. The current tariffs on Brazilian exports to the US will also discourage those imports.
- Japan will continue to import isoprene in support of SIS and IR production. Europe will continue to import smaller volumes of isoprene for butyl rubber and much reduced SIS production.

DCPD Outlook

- Supply growth for DCPD will come primarily from China. HHCR demand for DCPD continues to grow at a faster overall rate than UPR demand, but with demand for both sectors on the weaker side and depressing DCPD pricing in China at the present. Demand for higher purity DCPD is likely to grow above GDP rates with COC and poly DCPD applications.
- New and future IED start-ups that will produce additional DCPD in China include Ecisco at Jieyang City from earlier this month. An expansion at the Henghe Nanjing IED and a new facility from Luoyang Jinda will further add to the totals in 2026.
- The US will continue to rely on DCPD imports from Asia-Pacific, and the Netherlands to meet demand requirements, most of which is for UPR or ENB production. Imports from Brazil may be more problematic with the current 50pc duty rate.
- Europe will continue to import some volumes of DCPD primarily from China for UPR and high purity applications, and export small volumes of resin grade/lower grade material to the US. We could see more Brazilian DCPD volumes flow to Europe or Mexico in place of the US. Korea will continue to import DCPD for HHCR production while exporting high purity DCPD to consumers.

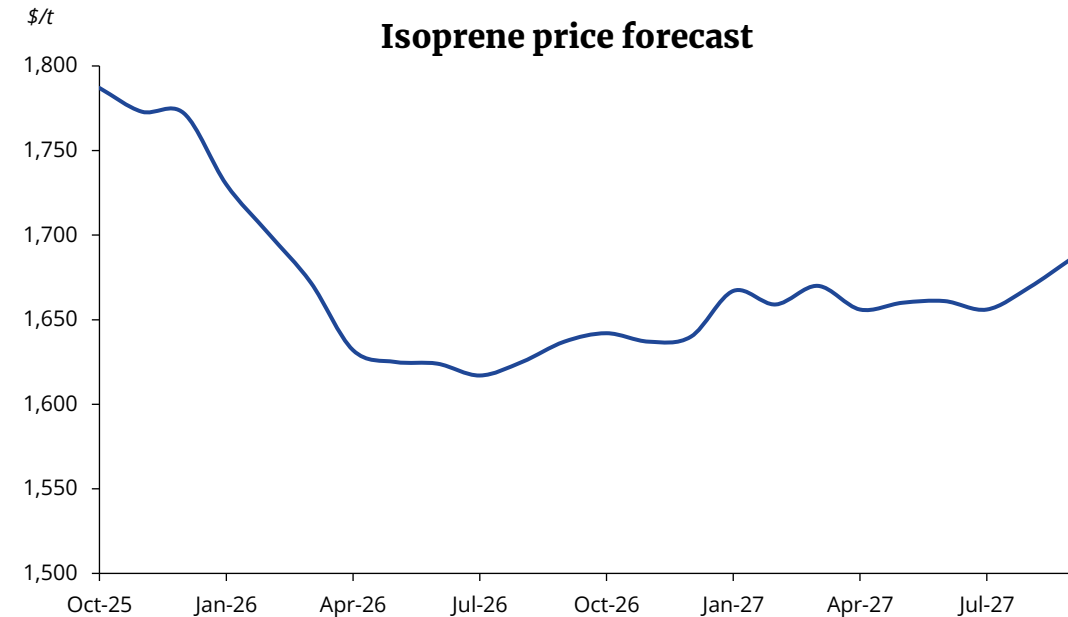
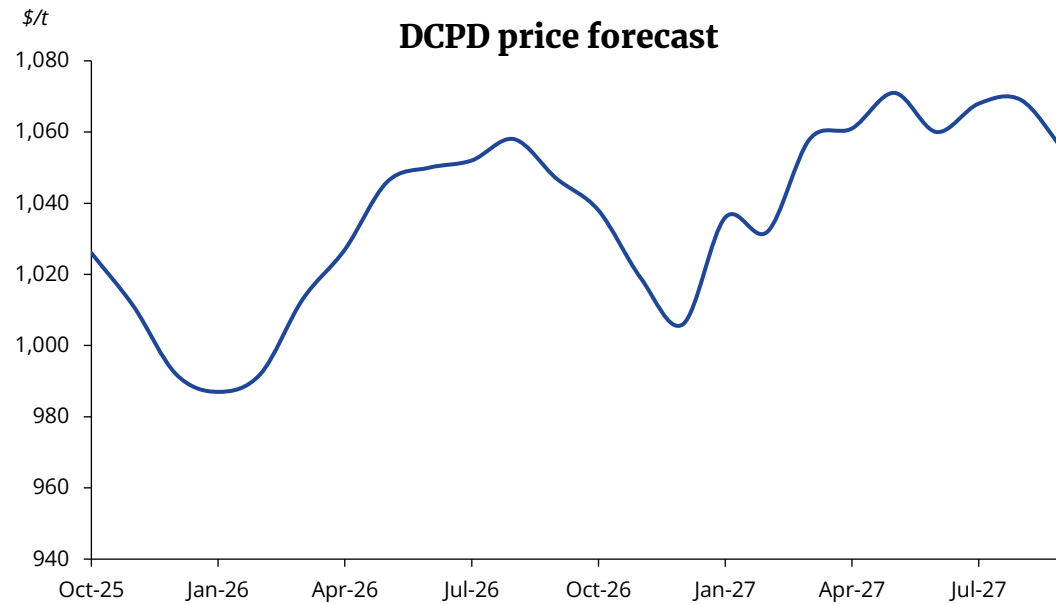
Executive Summary

[Click here to download the price dataset in Excel](#)

Price assessments

Monomer	May	June	July	August	September
DCPD	797	1068	1056	1057	1049
Isoprene	1911	1766	1772	1775	1789

C5 Hydrocarbon Resin, delivered US \$/t				
Year	1Q	2Q	3Q	4Q
2024	1,749 - 2,234	1,859 - 2,307	1,918 - 2,337	1,984 - 2,337
2025	1,984 - 2,337	1,984 - 2,337		



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Monomers

Resin former supply

Supply

- As has been the case for the entire year, ethylene plants globally are operating well below full capacity globally at rates to match downstream derivative demand. US operating rates remain generally higher than those of Asia-Pacific or Europe. Asia-Pacific ethylene producers continue to see LPGs (or more so ethane if available) as the most economic feedstock for cracking more often as of late, with naphtha cracking economics remaining quite negative. LPG cracking is ongoing in Europe along with some structural amounts of ethane cracking. US resin former production remains structurally more minimal.
- Cracker rates remain reduced in China but with naphtha still the most predominant feedstock for ethylene production despite its poor economics. US exports of ethane to China have resumed after a brief stoppage when export permits were required from the US administration. The US continues to add export capacity for ethane and LPG's, with much of this likely destined for China.
- The Sinopec Yanshan IED remains down for economic reasons with a restart unlikely. The Luhua Zhangzhou IED is in restart after planned maintenance in July/August. Fushun Yikesi is taking an IED outage along with the upstream Petrochina cracker that began the end of August. Most other IED units are currently online with average rates of 75-80pc. Shandong Qilong and Luhua Zibo remain purchasers of other third-party C5 and C9 feedstocks for their downstream facilities at Zibo. Late September (delayed from early September) will see a turnaround at Jinhai (both IED trains) in conjunction with an upstream Sinopec Zhenhai cracker. Start-up of the new Ecisco IED train at Jieyang City commenced this month.
- Asia-Pacific crackers outside of China continue to run at reduced rates with negative standalone production economics for both naphtha and in most instances LPG cracking. In Korea, YNCC is back to operating with just the No.1 and No. 2 crackers with the downstream IED running at rates to match reduced feedstock availability. Lotte will be operating at IED rates to match reduced rates on upstream cracker operations. As we noted last month, there is growing concern over the economic health of the South Korean petrochemical industry, with the government in conjunction with petrochemical producers now developing a response/rationalization plan to improve competitiveness which will include cracker capacity rationalization.
- In Taiwan, the Formosa No. 2 cracker restarted in early September, with the No. 1 cracker now down for an indefinite outage, and the downstream IED continues to run at reduced rates as a result.
- Overall cracker rates in Japan remain noticeably reduced, but with Zeon have restarted the IED in early August. Like Korea, there have been several announcements relating to future cracker capacity rationalization in Japan as they suffer through eroding business economics and low operating rates. See the *Industry News* section for additional discussion.
- ExxonMobil has both crackers in Singapore online, with rates likely increased with the unplanned shutdown of the Aster cracker. IED rates outside of China in Asia-Pacific had been noticeably reduced through much of the second/early third quarter but should be improved for the balance of the year.
- Ethylene continues to be balanced in Europe with no improvement to ethylene production volumes as producers manage inventories and co-products carefully. US resin former production is more typical and minimal with less than full operating rates on crackers and an ethane dominated feed slate. Domestic crude C5 feed to the largest consumer Goodyear will be slightly reduced with overall cracker rates in the US.
- C5 monomer output from Brazil has continued to find its way predominantly to the US and with Braskem progressing on an upgrade to their DCPD production capabilities which should come online in 2026. The current 50pc tariffs on Brazilian exports to the US are likely to impact these trade flows going forward, however. DCPD depleted crude C5's continue to flow from Europe to the US from one producer with a larger early July parcel arrival the most recently noted. These crude C5 shipments from Europe to the US will continue through mid-2026 and potentially beyond on a year-to-year basis.

Demand

- Margins remain weak for Chinese C5 processors with feedstock prices slightly higher from August. Demand for C9 feedstock and pips in China has been weaker with weak C9 HCR and C5 HCR demand domestically, but we may see better pips demand into the curing agent market in the future with substantial offshore wind turbine construction in China.
- Resin formers continue to flow structurally to the US to meet consumer needs. 2024 and YTD 2025 have seen saw tepid downstream demand with weaker overall imports of resin forming C5 monomers being the result. US demand for resin former and isoprene imports remains reduced with the shutdown of domestic C5 HCR capacity and weaker domestic production rates for SIS and UPR relative to several years ago.
- Monomer flows to Europe remain weaker to meet corresponding demand, with minimal isoprene moving from Asia-Pacific to Europe for SIS production, along with some smaller volumes of pips for HCR production and DCPD imports primarily from China.

Outlook

- After the 2024 start-up of Yikesi Panjin and Sheng Hong Jiangsu in China, we saw the start-up the IED unit at Jieyang City (Ecisco) this month. An IED expansion is planned at Henghe Nanjing for 2026 as is a new unit at Luoyang Jinda, further adding to resin former supply capacity in China.
- Global resin former capacity will remain well above global demand for tackifiers and SIS/IR for much of the decade. Having the right feedstock or derivative in the right geographic region at the correct time to take advantage of sales opportunities will remain key. Hopefully, we see some further clarity on the US tariff and trade issues which will allow producers and exporters to plan further into the future.
- The US will continue to see imports of isoprene and DCPD in reduced quantities until we see further improvement in derivative demand. Europe will continue to have C5 processing which is limited to DCPD production which will necessitate ongoing imports of pips, some grades of DCPD and smaller quantities of isoprene.

Unit Watch

- Chinese IED's including **Derong** (one train), **Jinhai** (two trains), **Sinopec Shanghai** (the larger train), **Sinopec SK Wuhan**, **Ecisco Huizhou**, **Henghe Nanjing**, **Sunion (Maoming)**, **Sunion (Zhanjiang)**, **Tianli (Xinjiang)**, **Luhua (Zibo)**, **Luhua (Panjin)**, **Fushun Yikesi (Panjin)** and **Sheng Hong** are all online with overall average rates in the 77-80pc range.
- **Luhua (Zhangzhou)** is restarting the IED after planned maintenance in July/August along with downstream derivative units at the site.
- **Fushun Yikesi** has been in turnaround on the IED since the end of August with the adjacent Petrochina cracker, with restart expected at the end of September.
- Late September will see a turnaround at **Jinhai** (both IED trains) in conjunction with an upstream Sinopec Zhenhai cracker.
- **Ecisco (Jieyang City)** commenced start-up the new IED unit earlier this month.
- **Sinopec Yanshan** IED remains down due to weak economics as it has been for an extended period, with a restart now appearing very unlikely.
- **YNCC** and **Lotte** are running at IED rates to match cracker feed supply at less than full capacity. **Formosa** has been running reduced rates on the IED with the No. 1 cracker now offline. **Zeon** completed their planned IED outage in Japan along with downstream derivatives and has returned to service as of last month.
- **Goodyear** announced the sale of the chemical business (including the IED at Beaumont) to **Gemstone Capital**. The asset sale is expected to close shortly.
- **Braskem**, who normally export much of their C5 monomer production to the US, may need to find an alternate home for some of their exports given the current 50pc tariff on Brazilian exports to the US.

Monomers

Piperylenes

Supply

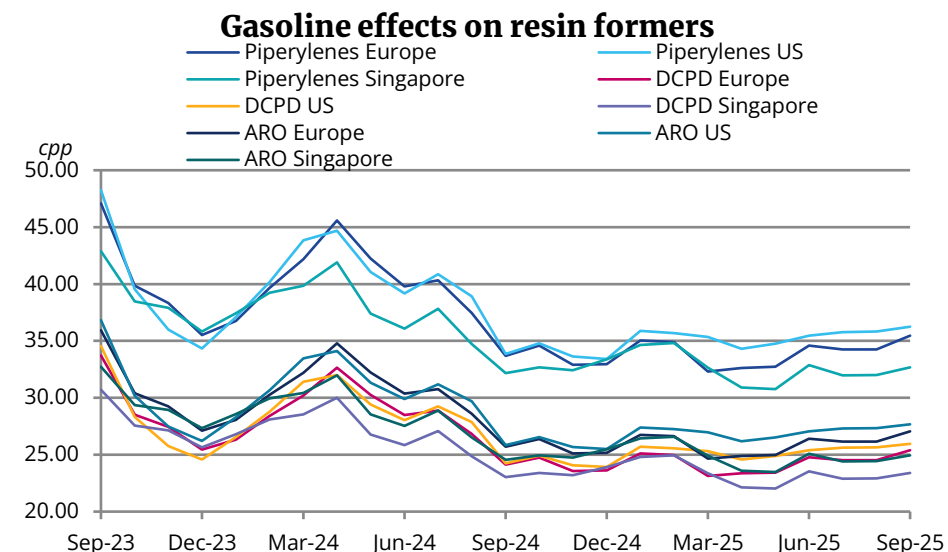
- Pips production in China remains more than adequate with most IED units operational at an overall rate of 77-80pc. The recent completion of several IED outages at merchant sellers and recent start-up of a new IED should keep pips balances generally on the longer side although September/October will see reduced production with a Fushun Yikesi IED outage in conjunction with upstream crackers and a late September outage at Jinhai corresponding to a Sinopec Zhenhai cracker outage.
- Pips production in Taiwan remains below capacity with one of the three Formosa crackers rotating offline and corresponding to reduced rates at the downstream IED. Exports should remain slightly weaker as a result.
- Korean production volumes of pips remain reduced with IED's matched to reduced upstream cracker rates. The balance of the year should see more steady production in Korea with planned maintenance work complete at C5 processors and their upstream crackers.
- Pips production within Japan is reduced with lower cracker rates as has been the case for some time but appears sufficient for domestic consumption and for exports to Thailand to support improved C5 HCR production rates. Zeon completed an IED outage along with downstream derivatives in Japan, which should normalize pips supply for both Thailand and domestic needs.
- Crude C5 and in turn pips production in the US remains structurally weaker with US crackers running below maximum rates on predominately ethane feed.
- Crude C5 parcels containing piperylene continue to flow from Europe to the US from one producer and continue to provide additional pips (and isoprene) for the US market. There is no other pips production in Europe.

Demand

- Overall demand for pips into C5 tackifiers remains weaker globally in 2025 with weaker demand from the tapes and labels markets and with demand for C5 HCR into road markings only slightly improved during the early fall period in China.
- Demand for pips streams in China into the curing agent market for epoxies remains weaker this month. There is the potential for improved and growing demand in the curing agent market in the future with a number of large offshore wind farm projects in Guangdong, Hainan, Jiangsu and several other coastal provinces.
- Posted pricing for pips in China is flat this month with demand still weaker overall and was recently seen at 6,200 – 6,900 RmB/t (\$873/t - \$971/t) ex-plant depending on the region with weak margins for C5 processors and many C5 HCR producers.
- Demand for pips in the balance of Asia-Pacific remains improved from last year including volumes flowing to Thailand for tackifier production, with Japan and potentially Korea supplying much of this volume. We expect pips demand for Thailand, Korea and/or Japan to be stronger with additional C5 tackifier exports from the region to the US and Europe with the recent shutdowns of C5 HCR production at ExxonMobil NDG in France, Resin Solutions in the US, and the shutdown plans for ExxonMobil in the US, particularly if the elevated tariffs for Chinese exports of HCR to the US relative to other exporters remain in place. US tariffs on imports continue to be a moving target at this point for some countries but with a number of bilateral trade agreements somewhat finalized.
- Import flows of pips to the US have been reduced but not eliminated since early 2024, given lower overall C5 HCR demand from the shutdown of production at the Wingtack® tackifier plant in Texas. Brazil and Korea remain the primary suppliers of any US pips imports, which should be structurally lower going forward, and in the case of Brazil, impacted by the current 50pc tariffs on exports to the US. Some US domestic production of pips may find its way to the gasoline pool depending on short term regional balances given the structural decrease in domestic demand.
- Pips consumption in Europe will be more minimal given the significantly reduced volume of C5 HCR production in the region but import volumes primarily from Asia-Pacific are likely to continue, with some Brazilian volumes potentially finding a home there.

Outlook

- The addition of three new IED facilities in 2024 and 2025 will increase available supply of pips within China. 2026 should see further capacity additions for pips as part of an Henghe Nanjing IED expansion and a new Luoyang Jinda IED facility.
- Globally, pips supply is expected to be more than adequate given current weaker demand for C5 tackifiers until such time as the tapes and labels markets see much stronger demand. Demand for pips into epoxies within China should grow further with growth in offshore windmill farms but currently ranks a distant second to tackifiers in terms of piperylene consumption in the country.
- Piperylene imports to the US will be reduced with reduced C5 HCR production, and piperylene imports to Europe will remain more minimal to match much reduced HCR production. With current tariffs in place (50pc) for Brazilian exports to the US, these piperylene flows may need to be diverted elsewhere or recycled within the Braskem system.



Monomers

DCPD


Supply

- DCPD balances are slightly tighter within China for September versus last month with some opportunistic buying at the lower prices increasing demand. Prices are higher in September relative to the end of August and were seen recently at 5,450 – 5,600Rmb/t (\$767/t - \$788/t) ex-plant for 80-85pc grade material with prices weakest in the northeast. New DCPD capacity at the Eisco Jieyang City IED is commencing operation this month. Fushun Yikesi is in turnaround in the north since end August and the end of September should see a turnaround at Jinhai in Ningbo (both trains) with an upstream cracker outage.
- Korean DCPD production remains slightly reduced with cracker rate reductions in 2025. Imports of DCPD to Korea continue to supplement domestic DCPD production for use in HHCR production. Korean DCPD production should be normalized looking forward with a number of key turnarounds behind us. Japan continues to produce less DCPD with crackers reduced on rates generally but with the Zeon IED back online since early last month. DCPD production volumes in Singapore should be normalized, but with the potential for higher cracker rates for a short period with the adjacent Aster cracker in Singapore currently offline due to technical issues.
- Production rates for DCPD in Taiwan remain reduced with Formosa rotating upstream cracker outages and with reduced downstream IED rates as a result. DCPD exports from Taiwan were 1,150t in July, and YTD are tracking 7.0pc below 2024 levels at 6,204t. Stronger operating rates at the Idemitsu/Formosa HHCR plant which uses higher purity DCPD as feed along with reduced IED rates means less DCPD is available for export. Taiwan exported just 10,138t of DCPD in 2024 according to GTT data. We expect the trend of lower DCPD exports from Taiwan predominantly finding their way to the US (65pc YTD) to continue.
- DCPD availability remains adequate at present to meet UPR demand for the construction, automotive and RV markets in the US, with US producers that are normally capable of producing high or ultra high purity DCPD continuing to sell into the UPR market to move volume. This will likely continue until another significant source of UPR grade material to supply the US is available or demand for high and ultra-high purity DCPD improves domestically. Imports from Europe of lower grade material are likely to continue going forward. We may also see some resin grade DCPD upgraded to UPR grade at custom processing facilities within the US if balances dictate it.
- Braskem in Brazil plans an upgrade of their DCPD production facilities by 2026 to produce UPR grade material suitable for direct sale to UPR customers in the US (tariffs notwithstanding), Mexico and elsewhere. This additional supply of UPR grade material would help fill the gap left by the shutdown of the Texmark facility in the US during 2024. Braskem would also be positioned to export to European UPR grade customers.
- European DCPD production was reduced again due to another outage at the cracker at the Unipetrol Litvinov facility that occurred in mid-August, and it is likely this reduced available DCPD volumes in September under a *force majeure* that has since been lifted (see the *Industry News* section for an update). Lower cracker rates in Europe and an idled cracker at one DCPD producer will mean slightly lower production than what may have been seen even several years ago. DCPD exports from Taiwan to Europe were very minimal in 2024, with any DCPD imports to supplement domestic production coming almost exclusively from China. With any Chinese exports of DCPD facing what could be elevated import tariffs to the US, Europe and the balance of Asia-Pacific will tend to be the preferred home for any these Chinese DCPD exports.

Demand

- Overall DCPD demand in China remains weaker in September with UPR overall operating rates now around 35pc, and steady but tepid HHCR demand for DCPD. Very low domestic DCPD pricing is encouraging slightly stronger buying interest and derivative production despite what remains generally weaker downstream demand.
- Weak HHCR production in Europe means more Chinese export HHCR volumes are finding their way to Europe, supporting long-term DCPD (and C9 ARO) demand in the China domestic market. Korean and Taiwanese HHCR producers will also try to move additional volumes to help backfill the European HHCR domestic production imbalance, providing additional demand for DCPD into HHCR in the balance of Asia-Pacific. DCPD demand in Europe will be tepid overall between weaker UPR demand, lacklustre demand into ENB, growing demand into COC and more minimal demand into HHCR.
- US UPR market demand for DCPD remains on the weak side but improved marginally during the summer. DCPD demand for HHCR in the US remains decent with HHCR producers seeing good demand for production but with much of the feedstock being internally produced. Demand for ultra-high purity DCPD for poly DCPD applications is expected to increase in the US after UHP DCPD capacity was expanded last year and at least some of this volume is anticipated to serve as feedstock for ExxonMobil's emerging Proxima™ business as noted last month.
- Based on USITC data, July US imports of DCPD increased to 1,901t from just 119t in June with arrival volumes from Japan and Brazil. Benchmark DCPD prices were assessed at just \$797/t for May bulk loadings to the US with minimal parcels in the assessment and with September prices for loadings forecasted to be \$1,049/t ex-Asia with more typical export/import volumes. For 2025 YTD through July, US DCPD imports were 12,842t and are now tracking 15pc lower than for the same period of 2024. For 2024, US imports of DCPD totaled 23,207t. Weaker demand in the UPR markets coupled with stronger domestic production of UPR grades remains the key reason for the weaker imports.
- European domestic production of high purity DCPD continues to feed domestic consumers for ENB in Belgium and cyclic olefinic copolymer (COC) production in Germany. Demand for UPR grade in Europe will be weaker like the US. As a result, DCPD exports from Taiwan to Europe for 2025 remain minimal, with just 1,275t exported to the region through July. Smaller Russian(Tartarstan) origin DCPD volumes will flow to India, Turkey or other Asia-Pacific consumers having been displaced from the Eurozone by sanctions. Chinese exports will make up most of the balance of demand in the EU.


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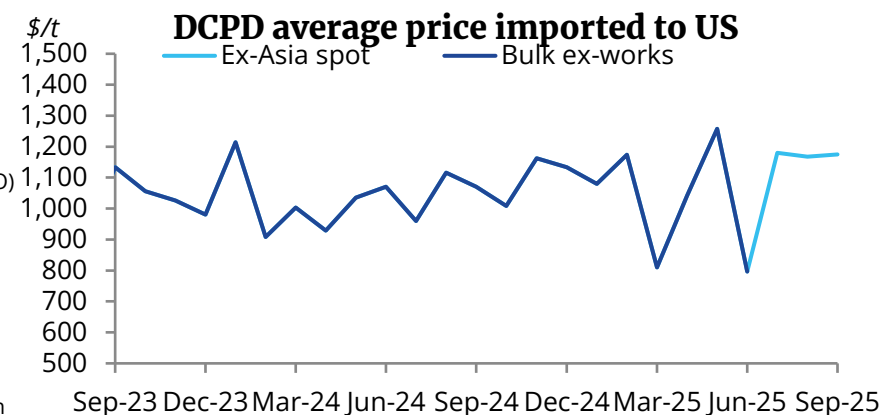


Argus Pine Chemicals

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Monomers

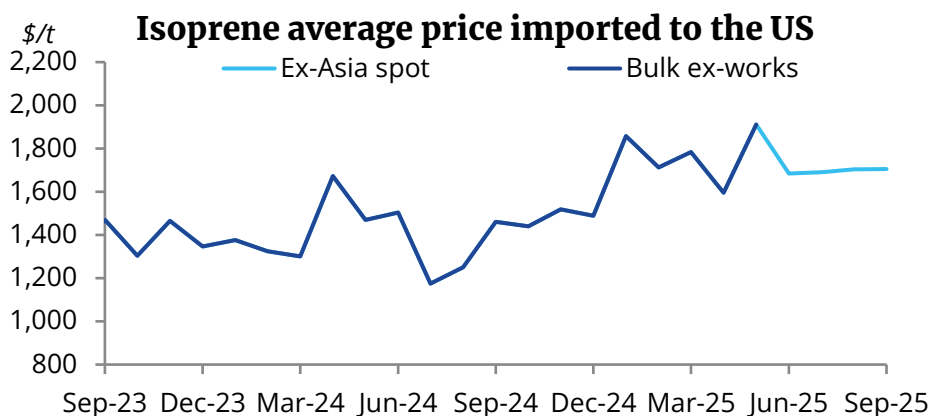
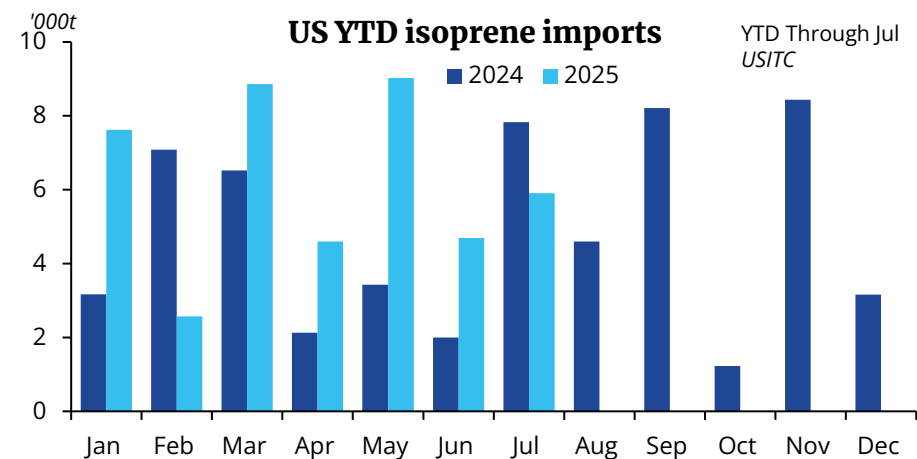
Isoprene

Supply

- Isoprene supply in China remains adequate with most isoprene units except for Fushun Yikesi (planned outage) and Sinopec Yanshan (long term outage) operating, with overall rates of 75-80pc. The Luhua Zhangzhou IED is in restart after turnaround. The end of September will see some loss of isoprene supply as Jinhai (both trains) takes a turnaround along with an upstream cracker. New capacity online from Ecisco (Jieyang City) started up this month. Domestic spot IPM prices in China are slightly higher from this time last month and were most recently seen at 10,700 - 11,400 RmB/t (\$1,506/t - \$1,605/t) ex-plant with prices weakest in the north, where balances have lengthened with reduced IR production.
- China has exported 13,742t of isoprene YTD through July, up 103pc from the same period of 2024. Chinese exports of isoprene for all of 2024 totaled just 12,134t. Chinese exports of isoprene arriving in the US for 2024 were just 3,300t and volumes exported from China to the Eurozone during all of 2024 just 1,392t. China has exported 2,145t of isoprene to the US YTD. With the current tariff regime in the US for Chinese imports, through to November at least, we could still see further Chinese isoprene exports to the US arriving until when/if there is a final resolution to the current round of the tariff/trade war.
- Korean isoprene exports increased to 6,666t in August from 3,084t in July but are tracking 15pc below 2024 at 36,816 YTD according to GTT data. YTD total export volumes were lower with the reduced IED operating rates at YNCC for February through early April followed by Lotte during an upstream cracker turnaround through early June. Korean production rates and isoprene exports were much improved in 2024, with a total of 62,257t exported, 66pc higher than 2023. Most of this volume (68pc) was destined for the US. Korean exports to Singapore are increasing with the start-up of the new Cariflex IR latex facility last year and are 4,325t YTD through August, up 106pc from 2024. At the same time, Korean isoprene exports to Brazil have dropped by 69pc, presumably due to lower operating rates at the Cariflex plant in Brazil as the Singapore plant ramps up production. Overall isoprene imports to Brazil are down 46pc YTD.
- Taiwan remains the second largest isoprene exporter in the Asia-Pacific region outside of China with export volumes of 12,650t YTD through July, now 12pc above volumes for the same period of 2024 after strong July export volumes. For 2024, shipments of isoprene were 22,128t, with most (59pc) headed to the US.
- Japanese production of isoprene decreased during May/June/July with a Zeon IED outage in conjunction with internal downstream consumers, which kept isoprene balances in the Asia-Pacific region outside of China snuggier when taken in context with weaker Chinese, Korean and Taiwanese production in the same time frame. Pricing as of late has been above annual contract pricing for IPM export parcels to the west or Japan which are negotiated quarterly or on a spot basis. This is likely to remain the case until global supply/demand balances likely lengthen later in the fourth quarter after the heavy cracker/IED turnaround season and with additional new IED capacity online in China.
- US production of isoprene remains slightly below typical with crackers at slightly reduced rates on predominantly ethane feed but with isoprene contained in crude C5 imports from Europe continuing to boost production numbers at the largest isoprene producer in the US. Without these imports of crude C5 to the US, consumers would need to source replacement isoprene volumes from other exporters.
- Isoprene supply to Europe is made up entirely of imports, most of which has historically flowed to Italy for SIS production and smaller volumes to other countries for butyl rubber production. Isoprene flows to Europe are not expected to increase in 2025 with very minimal SIS production.

Demand

- SIS demand for isoprene in the west remains tepid thus far in 2025, with demand into IR faring slightly better. Domestic demand in China into SIS is only slightly improved this month but with some distributors building inventory. Isoprene demand into IR within China is weaker once again with several IR plant turnarounds and weaker demand into the tire segment. New SIS/SEPS capacity online at Jinhai and due to come online at Shanghai/Baling and Ecisco over the next several months could increase domestic demand for isoprene in the short term but the SIS production balances will need to be managed given limited market demand.
- US isoprene production continues to be used primarily for internal use and mostly for IR (Goodyear) production with some external IR sales. Much of the IR exported from the US represents intra-company transfers to tire producing locations around the globe, with Goodyear receiving a number of isoprene import parcels this year in support of IR production.
- Export markets for US SIS producers remain challenging given the delivered cost of isoprene feedstock to their operations, with IPM formula pricing higher in 2025 and quarterly/spot pricing higher yet currently as noted above. Isoprene exports to the US from China were more minimal in 2024 but increased briefly early in 2025. Most isoprene arrivals to the US however remain contract purchases from Korea, Taiwan or Brazil. Brazil purchases are likely to be minimized where possible for the foreseeable future if the US import tariff remains at 50pc.
- In July, total imports of isoprene to the US were 5,910t compared to June at 4,692t per USITC data. Benchmark isoprene prices were \$1,911/t ex-Asia for May bulk loadings with some higher priced parcels in the mix, with September loading prices forecast to be \$1,789/t ex-Asia with the higher formula pricing in effect and with less spot volume. US imports of isoprene through July are 43,281t, 35pc higher than the same period of 2024, with the increased imports attributable to increased demand for isoprene into domestic IR production.
- Demand for isoprene in Europe remains weaker with minimal SIS production and with smaller volumes destined for butyl rubber production. Korea exported just 3,740t to the Eurozone during 2024, China 1,392t, and Taiwan 2,151t, and totals this year may trend lower yet.
- Japan, the second largest importer of isoprene after the US, has imported just 4,381t of isoprene YTD through July, down 40pc from the same period of 2024. Imports for all of 2024 were 15,516t.



Monomers

Butadiene

Supply

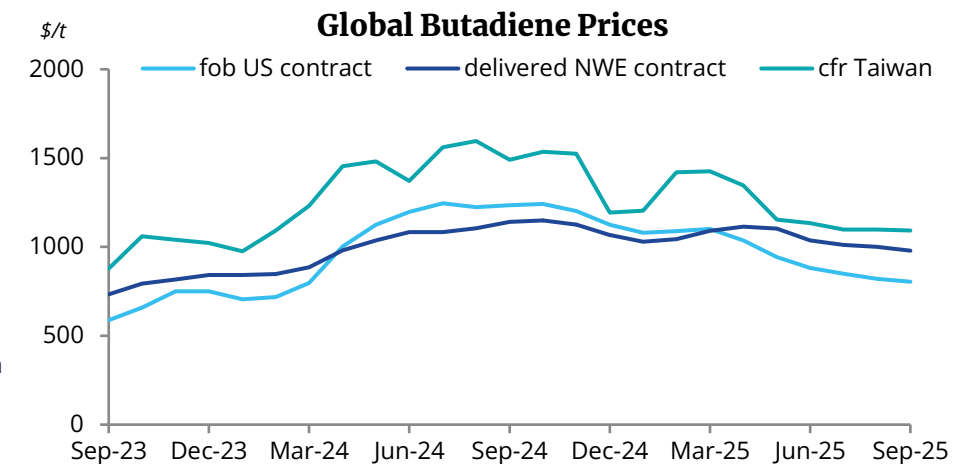
- The September *Argus* prevailing butadiene (BD) contract price (CP) in the US settled down by 0.75¢/lb to 36.5¢/lb (\$821/t), its lowest level since February 2024.
- A major BD producer declared *force majeure* at its Houston, Texas, complex this month following a rainstorm that triggered a site-wide power outage. Several consumers were placed on allocation, though the producer has recently achieved on-specification production, sources indicate. As of last week, allocations may not be necessary. The unit was in restart mode last week, but it is unclear when production rates will return to normal levels. The producer outage fueled fears of a temporary supply crunch and is causing prompt-delivery spot prices to rise, leaving buyers to scramble for replacement volumes. Multiple producers sold September-delivery material at either narrowed discounts or even flat to the US prevailing contract price (CP) of 36.5¢/lb (\$805/t). *Argus* assessed US BD spot prices at 33-36.5¢/lb, up from 32-34¢/lb the prior reporting week. The US is slated to load three deep-sea cargoes of BD to Asia-Pacific in September.
- The European butadiene (BD) monthly contract price (MCP) for September settled at €835/t (\$979/t), also the lowest level since February 2024. European butadiene (BD) producers continue to export material to northeast Asia as plentiful domestic supply persists. Despite six consecutive months of declines in the European BD monthly contract price (MCP), export prices are consistently discussed at discounts to the monthly contract price. The arbitrage window between Europe and Asia remains narrow due in part to a weak US dollar relative to the Euro. A weaker dollar means that the comparatively stronger euro is competing against cheaper US cargos. The European MCP has fallen consistently since March's MCP of €1,050/t (\$1,092/t). But, while it has fallen €215/t to the September MCP of €835/t (\$972/t), on a dollar basis it has only fallen by just over \$100/t.
- Liquidity remained brisk in both the fob and cfr northeast Asia BD markets. Some producers offloaded inventories to avoid the upcoming arrival of deep-sea volumes from Europe and the US. Some crackers have begun to raise LPG cracking volume, with margins becoming more attractive. With the increase in LPG cracking, BD output in northeast Asia could potentially be limited going to the fourth quarter, offsetting the impact of deep-sea arrivals.

Demand

- The shutdown of Denka's chloroprene rubber production, combined with weaker demand from Midwestern downstream consumers, has lengthened BD supplies in Louisiana, US. The supply build supported increased export activity following a general slowdown in deep-sea movements after the first quarter.
- Bids for deep sea cargoes ex-Europe have emerged in the mid-to-high \$700s/t range. These bids represent discounts of 18-23pc to the September MCP. Notably, northeast Asian cfr prices have dropped between \$265-315/t from \$1,365/t at the end of March to around \$1,050-1,100/t at present. Unless the dollar strengthens and/or Asian prices rise, European sellers may find themselves squeezed on pricing.
- Kumho in South Korea, a major consumer of BD, is planning turnaround maintenance for its downstream units starting the third week of October. Each unit is expected to be shut for 2-3 weeks, and the firm is expecting all downstream units to start running again in early December.
- Domestic prices in China followed synthetic and natural rubber futures prices lower last week. Spot molecules were traded between Yn8,850-9,100/t, or the import parity equivalence of \$1,094/t. This represented a \$19/t premium to last week's cfr northeast Asia assessment. The arrival of deep-sea cargoes also weighed on domestic prices.

Outlook

- Planned maintenance in Asia-Pacific is set for the fourth quarter. For several months, we have anticipated an uptick in prices, although the situation is changing with export volume headed to the region.
- The US and particularly Europe are showing signs of length and a willingness to export at prices below their respective contract prices.
- The threat to US ethane exports to China has faded at present. However, the two countries still need to work out a trade agreement with a preliminary deal now set to expire in early November. Any switch away from ethane cracking would generate more BD volume within China, lengthening regional balances.



Monomers

Aromatic resin oil (ARO)

Supply

- Cracker cash margins within Asia-Pacific are in generally negative territory for all feedstocks except ethane, although LPG margins have oscillated between negative and positive for some of 2025 including September. Cracker rates nonetheless remain reduced in Asia-Pacific as they have been for an extended period. The US is running on an ethane based feedslate with standalone cracking margins positive but weaker than several months ago with lower spot ethylene pricing. Europe continues to operate at much reduced operating rates with permanent and temporary cracker shutdown announcements more commonplace as of late. ARO supply for tackifier resin production in Asia-Pacific outside of China continues to see tighter balances, while Chinese demand into C9 tackifiers for tires and asphalt modification remains weaker exiting the summer and with C9 tackifier exports to the west generating very weak netbacks. China in general has seen adequate supplies of C9 ARO for consumer use but with flat to slightly higher pricing as of late with higher crude oil pricing and better demand for C9's into diesel blending with demand for C9 ARO remaining weaker.
- Available C9 ARO supply for Taiwanese consumers remains somewhat constrained with reduced production from YNCC with only two of three crackers operating. Reduced YNCC production of C9 ARO will also impact export customers in Europe and Japan. LG Chem will take an October turnaround at its Daesan cracker which will limit some exports. CPC in Taiwan, another C9 ARO producer, continues to operate with both crackers online until a possible November two month outage at cracker No. 4. The Formosa No. 2 cracker restarted in early September, but the No. 1 cracker now taking an outage of indeterminate length after the restart to maintain just two crackers in operation.
- Japanese C9 ARO supplies for HHCR production in Japan are improved with a lighter turnaround schedule this year for domestic producers but C9 ARO flows to Japan from Korea continue to supplement domestic volumes for use in C9 HCR production.
- C9 ARO production in the European region continues to decrease with the 2024 shutdown of the Sabc Geleen No. 3 cracker, the idling of one of the crackers at the Dow Terneuzen site and the shutdown of the Versalis Priolo cracker in July. The absence of BASF in the supplier market in Europe has also been keeping balances tighter. C9 ARO continues to flow from the Synthomer assets on the Dow Boehlen site to the Netherlands at present, but Dow recently announced the permanent shutdown of this cracker in later 2027. Some C9 ARO volumes continue to find their way from Asia-Pacific to Europe to supplement domestic production in the region and this will need to increase in the future. C9 feedstock supply for C9 tackifier production in Estonia remains more minimal with European sanctions on Russian feedstocks and with the idling of the Dow cracker at Terneuzen, with tackifier plant rates reduced to match much lower feedstock availability.
- Small volumes of C9 ARO imports from both Asia-Pacific and Europe found their way into HHCR production on the US Gulf coast during 2024 at one of the large USGC HCR producers, with a July arrival from Europe the most recent noted. There is no US C9 ARO production. We expect these C9 ARO imports to diminish to zero going forward with the permanent shutdown of the consuming facilities.

Demand

- Many of the smaller C9 tackifier plants remain offline in China due to weak domestic demand and poor economics, reducing overall C9 resin feed consumption, particularly for lower quality feed. This remains particularly true for thermal grade producers of C9 HCR supplying the construction markets, which continue to be weaker in China during 2025.
- Prices for crude C9 feed streams in China are flat to slightly higher this month at 3,700 RmB/t (\$521/t) ex-plant in the northeast to as high as 3,900 RmB/t (\$549/t) in the north with some improvement in demand into the fuels market providing price support.
- Naphtha pricing within Asia-Pacific is flat to slightly higher versus this time last month and was assessed by Argus at \$599/t cfr Japan as of 18 September with petrochemical consumption still weaker for the paraffinic grades with overall reduced rates and ongoing LPG and ethane cracking.
- Spot northwest European naphtha pricing is slightly higher since this time last month and was assessed by Argus at \$564/t as of 18 September, with spot European gasoline prices higher since this time last month and assessed at \$735/t as of 18 September. European formula based C9 ARO priced off gasoline should be slightly higher in the near term with stronger premiums to gasoline in formula pricing for 2025, but pricing should retreat with gasoline pricing in the winter months. Demand for C9 ARO in Europe continues to exceed available domestic supply when coupled with domestic supplier shutdowns, and this is keeping regional balances tighter.

Outlook

- Gasoline futures prices are now backwardated (priced lower) through to next spring. C9 ARO pricing for formula-based purchases tied to gasoline pricing is therefore likely to trend lower as the year further progresses due to lower underlying gasoline prices.
- European balances for C9 ARO are expected to remain tight given the loss of various C9 ARO streams as cracker shutdowns progress, short of us seeing another C9 feedstock supplier (re)enter the market, or significant additional volumes start to flow from Asia-Pacific to the region. C9 ARO supplies to Taiwan are also expected to remain on the snug side given increased demand for Korean and other Asia-Pacific C9 ARO from Europe.
- Demand for ARO from smaller C9 HCR producers has been weaker in China, who are seeing weak overall domestic demand for C9 tackifiers. Demand for C9 ARO into HHCR production is stronger than for C9 HCR and is expected to remain that way with very competitive HHCR pricing in the China domestic market.
- C9 ARO arrivals to the US continued in 2025 with volumes arriving from both Asia-Pacific and Europe. Demand into the US should wind down shortly with the upcoming shutdown of the ExxonMobil HCR units which are consuming the C9 ARO.

Argus C5 and HCR Publication Schedule 2025

Argus C5 and Hydrocarbon Resins	27 th October
Argus C5 and Hydrocarbon Resins	24 th November
Argus C5 and Hydrocarbon Resins	22 nd December

Monomers

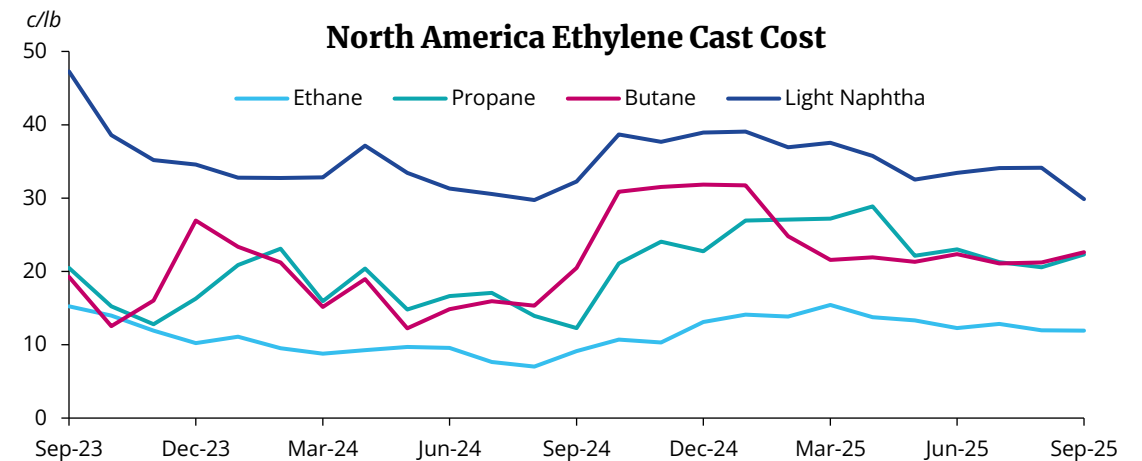
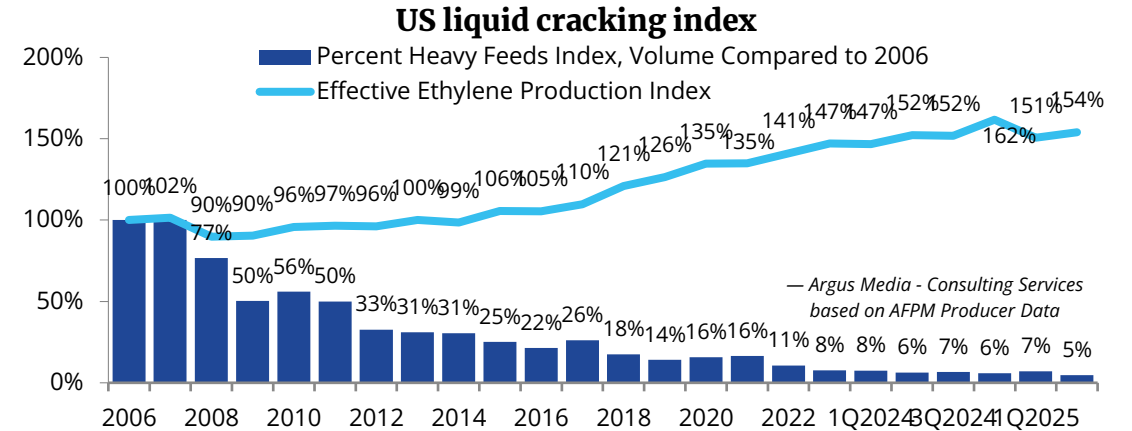
Ethylene production

Supply

- Export demand and new derivative capacity are supporting cracker operating rates in the US. Higher ethane prices remain a risk if natural gas prices strengthen. Ethylene exports will be supported by new infrastructure projects coming online this year. North American producers are expected to retain their cash advantage over other regions, but that advantage will narrow if lower crude and naphtha prices emerge as a result of Opec+ tapering of crude oil production cuts.
- In Europe, operation issues remain limited, but the market is oversupplied and controlling the co-product balance including propylene remains a key driver. The arbitrage for importing ethylene from the US remains viable to those who have terminal access and storage.
- Northeast Asia ethylene prices are expected to stay firm for the rest of this year because of tightening supply and new derivative start-ups. In China, CNOOC Daxie brought its 250,000 t/yr of ethylene capacity online in mid-August and sold the ethylene to the merchant market. PetroChina Jilin produced on-specification ethylene at its new 1.2mn t/yr cracker in early September. PetroChina Guangxi is likely to start up its new 1.2mn t/yr cracker by November or December. Both crackers ethylene output will be balanced by associated downstream units.
- The southeast Asian market eased after Lotte Chemical restarted its 1mn t/yr cracker in Merak, Indonesia, and Vietnam's Long Son restarted its mixed-feed cracker and downstream units by the end of August. But the market tightened again after Singapore's Aster declared force majeure in late August and are currently seeking spot ethylene cargoes to feed its downstream units, with a restart not expected until at least mid-November. No additional capacity is expected to come online in southeast Asia in the near term.

Demand

- New stand-alone production capacity for PE and PVC derivatives will tighten the domestic merchant ethylene market in the US later this year and heading into 2026. Global ethylene and derivatives capacity additions will pick up in 2026-27, affecting margins and operating rates.
- Recent European cracker closures, together with the idling of a unit in the Netherlands in June, will help keep the market better balanced. But Argus does not forecast margins strengthening significantly until downstream confidence and demand increases. Higher regional costs together with new regional and global capacity additions over the next 2-3 years will also add to the pressure on European crackers and derivatives, especially if underlying demand does not recover and trade barriers from the US are lowered.



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2. **Monomers**
3. **Tackifying Resins**
4. **Polymers**
5. **C5 and HCR Trade Data**
6. **Economic and Energy Insight**
7. **Industry News**
8. **Appendix**

Tackifying Resins

C5 tackifiers

Supply

- C5 tackifier operating rates in China remain greatly reduced with some producers routinely taking planned outages to control inventories in a weaker demand market. Chinese domestic prices for C5 adhesive grade tackifiers are slightly weaker in September from August. Pricing was most recently seen at 9,100 – 10,700 Rmb/t (\$1,280/t - \$1,506/t). Prices remain above competing HHCR pricing in many instances but below those of rosin esters. Feedstock piperylene prices are flat over the last month with flat to slightly higher crude C5 feedstock pricing. Competition from HHCR is impacting demand for adhesive grades. Production of adhesive grades of C5 HCR will drop in late September when Jinhai (both trains) and Henghe (Plant B) take planned outages in conjunction with an upstream cracker outage.
- Production volumes for C5 tackifiers in Japan are seeing a lighter domestic cracker turnaround schedule in 2025, and smaller C5 HCR exports to the west continue. Zeon completed a C5 HCR outage in Japan early last month in conjunction with the upstream IED. Exports of C5 HCR from Korea continue to all regions with what should be increasing C5 HCR flows to the US along with increased flows from Zeon from Thailand. Elevated container freight costs continue for Asia-Pacific exporters, but after rates spiked much higher in early June, they moved lower once again for US destinations, while trending lower at a slower rate for European destinations.
- July exports of HCR (which are C5 HCR) from Thailand increased to 1,559t and YTD through July export volumes are 15,492t, up 4.6pc from the same period in 2024. Thailand exported 23,336t of HCR in 2024, up 28pc from 2023. Export volumes to Italy, Belgium and India are dominant in 2025. We saw weak total exports from Thailand for June and July as an impact of a C5 HCR plant outage but expect exports should start to increase.
- Europe continues to receive growing C5 HCR tackifier imports from Asia-Pacific, with US C5 HCR exports to Europe very minimal and likely to drop further with the impending ExxonMobil C5 HCR shutdown in the US. Chinese exports of C5 HCR to Europe continue to grow quickly, due to a combination of shortness in European domestic supply, the lack of any protective tariffs, the significant growth in Chinese productive capacity, and US tariffs on Chinese C5 HCR imports. Europe now has minimal C5 HCR production, and we do not see this changing.
- Domestic sales volumes for remaining US C5 HCR producers should be steady to slightly stronger versus 2024 in addition to increased import volumes from Asia-Pacific, notwithstanding any new tariff effects. China, Korea, Japan and Thailand should all be beneficiaries of reduced US production. US imports of C5 HCR were stronger in the second half of 2024 and early in 2025 relative to the first half of 2024, but by far less than what Resin Solutions would have produced and sold domestically. Imports should increase going forward as US C5 HCR production will drop further as noted by year's end, which will open the door to further increases in C5 HCR imports, some of which will need to come from Chinese producers given the more minimal number of C5 HCR producers in Asia-Pacific outside of China.

Demand

- C5 HCR demand into the tapes and labels sector continues to be weaker globally in 2025. China continues to see weaker C5 HCR demand against reduced production for adhesive grades. Demand for road marking grades in China is slightly better in September with cooler weather as we exit the summer season.
- The Chinese market remains very well supplied with C5 HCR and competitive waterwhite tackifier pricing is providing stiff competition for the available domestic demand in many sectors. There should be an opportunity for additional Chinese C5 HCR exports to the US, with suppliers working with customers to produce more customized grades which may mimic US domestic grades which many no longer be produced. We may also see some US C5 HCR demand shift to HHCR or even smaller volumes of rosin esters as consumers look to formulate with tackifiers which may be more readily available in the domestic market.
- Prices for C5 HCR road marking grades in China are lower from August and were most recently seen in the 8,100 – 8,800 Rmb/t (\$1,140/t - \$1,239/t) range ex-plant. Sales margins for all C5 HCR remain under pressure but with producers unable to move pricing higher in the current competitive sales environment.
- Pricing had been more stable in the western markets, but with tariffs on all US imports at present and upcoming reduced US production we are seeing pricing on the rise from both domestic and importing producers. Europe is also seeing select price increases. The current temporary tariffs (as of writing) on Chinese HCR exports to the US should likely result in a continued flow of product to the US to help meet demand, but these tariffs could change once again if a trade package is not finalized by early November, making it difficult for importers to develop any sort of cohesive business plan. YTD through July, the US has imported 5,260t of C5 HCR while exporting 12,439t. Of the imports, 2,303t of C5 HCR, or 44pc are from China. Most of the remaining imports are from Korea, with smaller volumes from Thailand.
- Under a scenario of significantly increased tariffs for Chinese HCR exports to the US and lower retaliatory tariffs in place for other exporters to the US, we would normally expect to see Chinese C5 HCR import volumes taken out of the US C5 HCR market and some reduced competition. In such a case, Europe and other regions should see increased competition for existing C5 and other HCR demand as Chinese producers seek even greater market share in those markets. But as we move towards the end of the year, a significant reduction in US domestic production of C5 HCR will occur and with current demand should necessitate larger structural Chinese imports, not less.

Outlook

- All planned additions to C5 HCR capacity during 2025 and 2026 will occur in China. **Jinhai** has a new 30,000t C5 HCR line at Ningbo. **Ecisco** at Jieyang City will add 35,000t of new C5 HCR production and targets 2026 production for phase I of the project. **Henghe** is planning 50,000t of additional C5 HCR capacity at Nanjing for the second half of 2026 and **Luoyang Jinda** is planning a new 20,000t unit for the same time frame. New capacity additions from a number of IED start-ups or expansions over the same period will provide additional feedstock.
- US C5 HCR exports to Europe will be very minimal. US imports of C5 HCR should continue to increase with Asia-Pacific exporters looking to capture some of the available market share with the shutdown of **ExxonMobil** in the US occurring shortly. The current tariffs in place for Chinese exports of C5 HCR to the US will continue to push most Chinese volume towards Europe and other regions, but additional Chinese volumes will still be needed in the US to make up for lost domestic production.
- Asia-Pacific C5 HCR volumes moving to Europe will continue to grow with no new planned domestic C5 HCR production in Europe, the shutdown of the **ExxonMobil** C5 HCR production facility at NDG in France last year, less C5 HCR imports from the US, and what should be some very slow European demand growth. Most of this increased C5 HCR import volume should come from China barring any significant changes in tariff regimes for imports.
- Any new or increased tariffs on HCR imports to the US have the potential to further alter trade flows and make HCR imports to the US more expensive to the advantage of the remaining domestic HCR producers or those exporting countries subject to lower or no import tariffs. This situation continues to evolve on a week-to-week basis. In the case of C5 HCR, the only remaining US producer will be Synthomer.

Unit Watch

- Luhua (Zibo), Luhua (Wuhan), Sunion (Maoming), Ningbo Jinhai** (two trains), **Zhejiang Derong** (one of two lines), **Nanjing Yuangang (Henghe), Daqing Huake, Anhui Tongxin, Ningbo Yonghua (Henghe), Henghe (Ningbo Plant B), Puyang Xinyu, Shandong Ruisen** (one line), **Ecisco (Huizhou)**, and **Xinjiang Tianli** (both lines) are all online but with average operating rates well below full capacity.
- Lanzhou Xinlan** returned to service after a planned outage.
- Shandong Ruisen** (one line) remains offline. **Puyang Binder** is down until late September for a planned outage. **Fushun Huaxing** is down until early October for a planned outage.
- Luhua (Zhangzhou)** is in restart after a planned site-wide outage. **Henghe (Ningbo Plant B) and Jinhai** (two trains) will take late September outages in conjunction with an upstream Sinopec Zhenhai cracker outage.
- Shanghai Jingsen** remains in an extended shutdown and appears unlikely to start-up again. Market sources indicate the company may disband during the latter half of 2025.
- Zibo Kaixin** remains offline as it has been for an extended period with restart unlikely.
- Zeon** in Japan restarted in early August after a planned outage.
- Resin Solutions** permanently shut down its Beaumont, Texas, plant in 2024
- ExxonMobil** has permanently shut down the C5 HCR line at NDG in France and will shut down their C5 HCR line in the US before year end.

Tackifying Resins

C9 aromatic tackifiers

Supply

- Overall operating rates for C9 HCR plants in China remain reduced in September with the surplus of production capacity and continued overall weak demand for C9 HCR. Over 65pc (by facility count) of the C9 HCR producers are presently offline or idled for an extended period. Most adhesive grade producers continue to operate, while much of the idled or shutdown units are older thermal based production. This is unlikely to change any time soon.
- C9 ARO feedstock supply availability for resin producers in Taiwan is improved in 2025 with YNCC production in Korea normalized to match cracker rates after a C9 unit shutdown earlier in the year. CPC cracker operation in Taiwan has been stable as of late, also helping feedstock supply. PCS cracker operating rates in Singapore will be stronger with an adjacent cracker offline. C9 HCR overall operating rates nonetheless remain reduced in Taiwan with challenging netback economics for C9 HCR exports to the west. C9 HCR production in Korea is steady with regular exports to all regions including the US which is structurally short of C9 HCR. Most C9 HCR production in Japan from the two producing units is used domestically. Eneos plans to shut down their C9 HCR production unit in Japan in several year's time with the shutdown of upstream cracker capacity, which will leave Tosoh as the only domestic C9 HCR producer.
- C9 HCR production in Europe has been running to match available feed volumes which will be structurally lower in Europe after the recent shutdown of the Versalis cracker at Priolo in July, the idling of Dow capacity at Terneuzen, and in the future by the shutdown of the Dow cracker at Boehlen in 2027. Imported feedstock volumes are helping to support operating rates. The shortage of crude C9 feedstock supply for the C9 HCR plant in Estonia is not expected to change until when and if the sanctions on Russian sourced feedstock are lifted. Export volumes of C9 HCR from Estonia are 10,963t YTD through July, up 25pc from the same period last year but well below highs seen prior to the sanctions on Russian feedstock. Nearly all the Estonian C9 HCR production is exported to within the EU, with the largest volumes to France, Germany and the Netherlands during 2025.
- C9 HCR production in the US continues to consist mostly of C9/DCPD hybrid resins using lower quality feed versus C9 ARO with no growth in C9 ARO feedstock supply to support the structural shortage of C9 HCR.
- Europe remains a preferred destination for Chinese HCR exports including C9's looking to backfill any demand and take market share away from domestic production and the other Asia-Pacific key exporters including Korea and Taiwan. The US has seen steady HCR imports from China dominated by C9 HCR, but with volumes smaller in comparison to the C9 HCR export volumes from China to Europe.
- Tariff increases for Chinese C9 HCR exports to the US and for C9 HCR imports from any other country are likely to drive up the cost of C9 HCR in the US given a structural lack of supply. More elevated tariffs implemented on Chinese exports to the US would normally see more C9 HCR volumes flowing to other regions, but Chinese C9 HCR volumes cannot be entirely replaced by Korea or Taiwanese C9 HCR exports to the US, at least in the shorter term and China has a growing surplus of C9 HCR capacity relative to demand while the US will remain structurally short of C9 HCR.

Demand

- C9 HCR in the west continues to see reasonably decent demand and with European domestic producers working to keep up with demand and limited in some instances as noted by feedstock. Netbacks remain weak for C9 tackifier exports to the west from China (with punitive tariffs in the case of the US) and with somewhat elevated freight costs still having exporters to the west looking to improve margins but having to balance it against potential loss of market share in a very competitive market.
- Demand for C9 HCR in China remains weak relative to production capacity, for both adhesive and thermal grades. Weaker overall construction demand in China is detrimental to demand for C9 thermal grades with lower overall operating rates seen for most of these producers. Tire demand for C9 HCR remains weaker, with adhesive grade C9 HCR sellers under significant pricing pressure in competition with C5 HCR and especially HHCR.
- Spot pricing for lighter colored thermal C9 HCR grades in China is slightly lower from end August with feedstock and is seen recently at 5,000 – 6,400 RmB/t (\$704/t - \$901/t), with weaker demand into plastic modification and much of construction amid very thin margins.
- Dark color thermal C9 HCR pricing in China is also slightly lower from end August and seen at 3,400 – 4,600 RmB/t (\$479/t - \$648/t) with a number of producers for thermal C9 HCR grades as noted offline.
- C9 HCR adhesive grade pricing in China is flat versus later last month with competition from other tackifier families and was most seen recently at 9,000 – 9,500 RmB/t (\$1,267/t - \$1,337/t) with demand weaker and likely to stay that way with some demand shifting towards very competitively priced HHCR. HHCR pricing has been noted in some instances as lower than that of C9 HCR for adhesive grades in China as HHCR producers look to move volume and with DCPD feedstock pricing well below that of higher quality C9 ARO.
- In July, the US imported 1,372t of C9 HCR, with 786t of that from China. YTD the US has imported 9,674t of C9 HCR, with 46pc of the volume from China. For 2024, US C9 HCR imports from China were 10,247t, representing 61pc of Chinese HCR imports. Total US C9 HCR imports for the same period were 17,912t.
- Chinese C9 HCR volumes will be more difficult to replace in their entirety for US consumers should Chinese producers choose to export elsewhere because of current or future US tariffs. Taiwan and Korea remain the next largest C9 HCR exporters to the US, with Germany and Brazil exporting slightly smaller volumes. Brazilian exports to the US may become difficult with the current 50pc tariff rate.

Outlook

- Luhua (Zhangzhou)** added hydrogenation capacity during the July/August 2025 site outage to produce HHCR in place of the current C9 HCR at Zhangzhou, removing some thermal capacity from the C9 HCR market. Start-up is expected in November.
- Further rationalization of Chinese C9 HCR capacity is likely to occur over the next several years, given the surplus of capacity, including the smaller, older thermal plants not capable of producing higher grades of HCR. C9 HCR capacity is heavily concentrated in Asia-Pacific and China, even more so than for the other HCR families. No new C9 HCR capacity is expected in the near to mid-term, but when/if it occurs it will undoubtedly occur in China.
- C9 based HHCR and even DCPD based HHCR will continue to replace C9 HCR in some applications given the current cost competitiveness of HHCR resins.
- C9 HCR demand is experiencing minimal to negative growth, we expect this pattern to continue over the next several years as HHCR continues to take market share.

Unit Watch

- Units online: **Shandong Qilong** (all lines), **Guangdong Xin Huayue**, **Henghe (Plant A and B)**, **Lanzhou Huifeng**, **Fushun Huaxing**, **Zibo Zhengde**, **Linzi Xinzheng**, **Tianjin Jinye**, **Puyang Xintian**.
- Units offline: **Luhua (Wuhan)**, **Fushun Qilong**, **Gaocheng Hongda**, **Tangshan Kerun**, **Anhui Dingcheng**, **Fushun Kelong**, **Qingdao Eastsun**, **Shandong Kete**, **Shandong Landun**, **Shandong Kerong**, **Anhui Tongxin**, **Xinjiang Tianli**, **Inner Mongolia Zhoujin Huixin**, **Dongfang Hongye**, **Beijing Xinlan**.
- Shandong Wudi Tongye** is restarting after a turnaround.
- Fushun Huaxing** and **Daqing Huake** are both offline until early October for planned turnaround.
- Henghe (Plant B)** is expected to take an outage in late September along with the upstream Sinopec cracker.
- Luhua (Zhangzhou)** is offline for turnaround and will start-up in HHCR service in November.
- Xinjiang Tianli** is planning to restart after being idled since early last year.
- Shandong Qibang** (smaller thermal unit idled several years ago) is expected to restart with feedstock arrangements in place.

Tackifying Resins

HHCR (waterwhite) tackifiers

Supply

- WW HCR production rates in China remain the strongest amongst HCR production, with most HHCR plants operating. Derong is restarting the HHCR unit, having been idled due to poor economics. Henghe's new 60,000t train at Ningbo is operating. Lanzhou Huifeng is still offline in conjunction with an upstream cracker outage until later September. Ecogreen is down for a planned outage. Luhua (Zhangzhou) is in the process of restart after taking a July/August sitewide outage and is installing new hydrogenation capacity on their current C9 HCR production facility. The end of September should see planned outages at Jinhai and Henghe (Plant B) in conjunction with an upstream cracker outage which was delayed from early September.
- Korean HHCR facilities continue to export to the west in direct competition to the Chinese with more volume noted flowing to the US as of late with the evolving tariff situation for US imports from China and elsewhere. Taiwanese HHCR exports continue, mostly to within Asia-Pacific, with operating rates higher overall in early 2025 but with freight rates to the west remaining somewhat elevated and compressing margins. Japanese exports of HHCR's had been tracking lower recently and with most exports occurring to within the Asia-Pacific region. Japanese HHCR export volumes should increase to Europe and the US as the newer production line at Arakawa further ramps up production towards full capacity.
- HHCR production volumes in Singapore remain constrained well below capacity by feedstock availability until import facilities are complete later this year, when we expect operating rates to increase. Export HHCR volumes from Singapore typically find their way to Asia-Pacific and Europe. We note some exports of HHCR from Singapore to the US arriving in July as ExxonMobil moves to shutdown HHCR production in the US shortly before year end and shifts supplies for remaining HHCR customers to Singapore. We also note that exports of HHCR from Singapore to Europe are trending well above last year's levels with lower volumes remaining within Asia-Pacific.
- US producers are running closer to sold out for HHCR given current sales commitments. Feedstock piperylenes or DCPD are readily available. C9 ARO for use in modified grades of HHCR in the US had been in tighter supply but this demand will cease shortly. Margins for domestic HHCR producers in the US remain better than for competing imports given what are still somewhat elevated container freight costs from China/Korea/Taiwan to the US and with tariffs that must be absorbed somewhere in the value chain. Tariffs on all exporters to the US remain fluid but could ultimately impact trade flows.
- Europe is seeing reduced levels of domestic HCR production including HHCR. The two remaining HHCR producers in Europe are Synthomer and Rain Carbon. Synthomer uses C9 ARO for much of its feedstock supply for HHCR in Europe, which could constrain production volumes given the tightness in supply at present and especially going forward with several cracker shutdowns. Whether the EU will at some point implement anti-dumping duties to protect the remaining producers remains to be seen (see the *Industry News* section for additional detail).
- Container shipping costs were trending lower since early in the year with geopolitical developments and new container ship capacity. Rates spiked higher in early June as exporters tried to ship product to the US in advance of various tariff deadlines, and while they remain slightly elevated, should further trend towards historical norms. Costs for shipping to Europe are retreating at a slower pace than for US shipments.

Demand

- HHCR demand in China is weaker thus far for 2025 but remains stronger than for either C5 HCR or C9 HCR. Demand remains a little more stable in the west with HHCR supply/demand in the US more balanced. European demand for HHCR is being increasingly met with Asia-Pacific imports as domestic production continues to diminish.
- Spot pricing for HHCR in China is more stable in September as larger producers continue to aggressively move volume and was noted most recently in the 8,400 – 9,000 RmB/t (\$1,182/t - \$1,267/t) range, lower than that of adhesive grade C5 tackifier pricing in the domestic market, well below pricing of rosin esters, and even on par or below pricing for C9 HCR adhesive grades. Feedstock prices in China remain weaker for DCPD, helping preserve some of the sales margin with current HHCR pricing. Significant new HHCR capacity in China is coming to the market during the balance of 2025 through early 2027 as noted in the HHCR Outlook section and will keep sales margins depressed for the foreseeable future.
- HHCR prices in the west had been more stable since later last year but are moving higher moving toward the fourth quarter with reduced domestic production and the wave of new import tariffs. HHCR pricing at a reduced premium to adhesive quality C5 HCR in most locales is anticipated to continue until HHCR demand comes much closer to the available productive capacity. Despite the frequently changing rounds of tariffs on Chinese and other HHCR exports to the US, the US needs to replace lost domestic production from the ExxonMobil shutdown with increased imports from any or all of China, Korea, Japan, Taiwan or Singapore.
- EU HCR import volumes continue to grow substantially. YTD through July, the EU has already imported 180,331t of HCR from outside the region, up 17pc from the same period in 2024. For all of 2024, the EU imported 255,676t of HCR from outside the region. Any growth in HHCR demand in Europe continues to see increased HHCR imports and less domestic production. Total HCR volumes from China, Singapore and Thailand to Europe are higher in 2025 versus 2024, with Korean exports to Europe closer to flat year over year. Most of the Korean export volumes to Europe will be HHCR. Exports from Singapore (which will also be HHCR) to the EU are up 62pc YTD.
- Overall Chinese exports of HCR including HHCR continue to grow rapidly with capacity increases outpacing increases in domestic demand. YTD through July, China has already exported 302,572t of HCR, up 11pc from the same period of 2024. Chinese exports of HCR totaled 461,846 for 2024, 15pc above 2023.
- The US has imported 14,085t of HHCR YTD through July out of a total of 29,112t of HCR imports. During the same time frame, the US has exported 14,467t of HHCR out of a total of 28,145t of HCR exports. The US will move from being a net exporter to a structural net importer of HHCR after the shutdown of the ExxonMobil US HHCR production shortly and will need additional volumes of imports from Asia-Pacific including China to bridge the supply/demand gap.

Outlook

- **Henghe** and **Xinjiang Tianli** started-up new DCPD based HHCR capacity in 2024, with **Derong** commencing commercial operation in 2025. **Henghe** (Ningbo Plant B) have started up 60,000t of new DCPD based capacity in 2025. **Luhua** will add 50,000t of new HHCR hydrogenation capacity at Zhangzhou for November 2025 to hydrogenate existing C9 HCR production. **Henghe** is expected to start-up 100,000t of new HHCR capacity at Nanjing in late 2026, along with and 20,000t of new capacity at **Louyang Jinda**. Another 50,000t of additional capacity from **Jinhai** at Ningbo is expected to start-up in early 2027. Collectively, these 2024 to early 2027 HHCR capacity additions could add as much as 380,000t of new HHCR capacity into an already oversupplied market.
- European HHCR capacity dropped substantially with the permanent shutdown of two HHCR lines since 2023. HHCR imports to Europe continue to grow, with volumes currently dominated by Korean exporters but with Chinese import volumes growing to eventually overtake Korean volumes. HHCR exports from Singapore to Europe are expected to grow further once feedstock constraints restricting higher production are eliminated by next year. **Synthomer** and **Rain Carbon** remain the only two HHCR producers in Europe but are competing against low priced Chinese HHCR imports and a tight supply balance for C9 ARO feedstock.
- The US is expected to become a net importer of HHCR in 2026 after the shutdown of **ExxonMobil** production. Additional imports from Korea, China, Singapore, Japan and Taiwan are anticipated with relative volumes being import tariff dependent.

Unit Watch

- **Synthomer (Nanjing)**, **Luhua Tianjin** (both lines), **Luhua (Wuhan)**, **Ningbo Jinhai** (both lines), **Henghe** (all lines), **Zibo Kaixin**, **Shandong Ruisen**, and **Tianli** (DCPD HHCR) are all operating.
- **Derong** is restarting their HHCR unit after being shut down due to poor economics.
- **Lanzhou Huifeng** is down for turnaround with the upstream cracker with a late September restart.
- **Luhua (Zhangzhou)** will add hydrogenation capacity for thermal C9 HCR, with start-up expected in November.
- **Ecogreen (Zhangzhou)** is down for planned turnaround.
- **Jinhai** (both trains) and **Henghe** (Plant B) will take late September outages in conjunction with an upstream Sinopec Zhenhai cracker outage.
- **Xinjiang Tianli** (C9 HHCR) is planning to restart along with catalytic C9 HCR production at the site.
- **Shandong Qilong**, **Taixing Tianma** and **Xinjiang Liming Xintong** remain in extended shutdown having never operated commercially.
- **ExxonMobil** has permanently shut down the HHCR line at NDG in France, and will shut down the HHCR line at Baton Rouge, US before the end of the current year. We are likely to see increased rates at the Singapore plant heading into 2026.

Tackifying Resins

Rosin

Supply

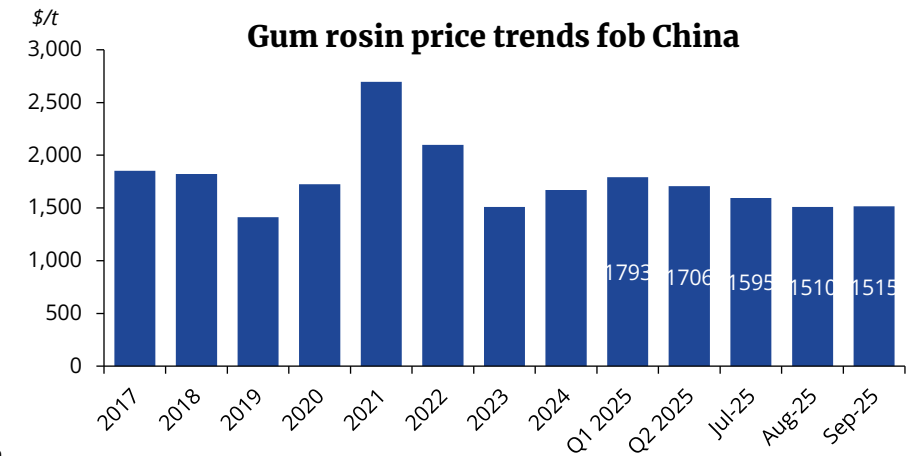
- Oleoresin production in China during September is in peak tapping season with increased production from all producing regions. Overall production volumes have thus far been smaller than anticipated however, particularly for *Pinus Elliotti* oleoresin. Rainy weather early in the season followed by the recent typhoon in Guangdong province and higher temperatures in Jiangxi and Huna provinces has limited the supply of both *Pinus elliotti* and *Pinus massoniana* oleoresin. Consumers of oleoresin are as a result bidding higher for the product, while sellers continue to hold product expecting higher oleoresin pricing. Higher oleoresin prices are likely to exert upward pressure on gum rosin and turpentine prices.
- Gum rosin ester pricing in China is higher in September for *Pinus Elliotti* based grades, with 19 September *Argus* assessments of \$1,631/t for gum rosin glycerol ester and \$1,645/t for gum rosin pentaerythritol ester, both ex-works. Rosin ester pricing in China remains well above that of domestic C5 HCR and HHCR pricing.
- Chinese imports of gum rosin YTD through July (the latest data available) were 48,403t and showed a YoY decrease of 12pc. July imports showed a year-on-year increase of 4.1pc at 9,977t. Average pricing for Chinese gum rosin imports during July was \$1,170/t on a CIF basis, much below domestic pricing. Indonesia and Vietnam continue to provide most of the import volumes but in quantities well below last year's levels. Gum rosin imports from Brazil, Argentina and Uganda are tracking well above last year's levels to make up the difference.
- Brazil oleoresin supply remains reduced in the off-season with a harsher winter and with domestic bids for the material increasing from buyers to secure the limited supply. Factories processing oleoresin are seeing margins squeezed by the higher feedstock costs and slower downstream markets. Brazil gum rosin exports in August were 46pc lower from July during the tapping off-season at 3,830t according to GTT data, with much of the export volume destined for Portugal, Turkey and Japan. A 27 August fire at the Pinus Brasil facility in Buri, Sao Paolo state destroyed the oleoresin and rosin ester facilities, with estimates of at least a year to rebuild the site (see the *Industry News* section for additional detail).
- In July, US export volumes of crude tall oil (CTO) dropped to 20,356t, down 20pc from the same period in 2024 and 55pc lower from June. YTD through July, CTO export volumes are 38pc above 2024 levels at 215,211t. Nearly all the export volume was headed to Finland and Sweden during July. In 2024, 85pc of total CTO export volumes found their way to Finland and Sweden. For 2024, US exports of CTO totaled 257,175t. US supply of CTO is expected to drop with recent closure announcements for several pulp mills, and with the purchase of the Ingevity North Charleston CTO processing site by Mainstream Products (see the *Industry News* section for additional detail), we could see increased processing of CTO within the US and a potential reduction in CTO exports.

Demand

- WW grade *Pinus massoniana* gum rosin pricing in China is higher this month with only slowly increasing supply and was heard trading mid-September at Yn10,500/t (\$1,478/t) exw Guangxi in China. WW grade *Pinus elliotti* was heard quoted at Yn9,500/t (\$1,337/t) exw Guangxi. Supply concerns continue to provide most of the price support rather than any sudden strength in downstream demand. Imported gum rosin to China has a very limited impact on *Pinus massoniana* pricing given the rosin's unique characteristics. *Pinus massoniana* gum rosin prices have averaged \$1,515/t fob thus far for September. August CGR market prices for *Pinus massoniana* averaged \$1,510/t fob, down \$85/t from July. Profitability for many gum rosin factories at present is coming not from gum rosin sales but from gum turpentine sales volumes.
- Demand for Brazilian gum rosin into the European market is weaker during September with sellers looking for improved pricing to cover increased feedstock costs and improve margins, while buyers remain on the sidelines. Export demand for rosin esters for the US has dropped with the imposition of the 50pc tariffs on Brazilian exports. Movements to the US will continue to face uncertainties over trade policy and tariffs. *Argus* last assessed *Pinus elliotti* gum rosin 15 September at \$1,075/t fob Brazil, higher from the end of August.
- Prices for US CTO have been more stable during 2025 after trending lower for the previous two years. *Argus* last assessed spot US CTO pricing 15 September at \$578/t southeast US port fob for smaller spot volumes. With less fractionation capacity currently online in the US, CTO balances remain long, and CTO exports should continue at these increased levels until eventually starting to trend lower in the future as additional US pulp mills cease operations and in turn their production of CTO, and if CTO processing rates reverse course higher with the Mainstream purchase of Ingevity's North Charleston assets.
- TOR esters have been facing changing supply dynamics in the US with less CTO processing, and with 50pc tariffs and expensive container freight for Brazilian rosin ester exports to the US weighing heavily on Brazilian import volumes. Export volumes of rosin esters should be lower during the oleoresin tapping off-season in Brazil. Sweden and Mexico continue to supply much of the rosin ester import volume for the US.
- Third quarter ex-mill drum contract CTO pricing in Europe was slightly higher and assessed at 34.63¢/lb, with soft demand and US spot volume readily available.

Outlook

- The current tapping season in China remains in the peak production period with increasing volumes offered into the market, but with these volumes clearly below initial expectations. Downstream demand for gum rosin remains weaker and is keeping pricing well in check.
- CTO balances remain long in the US with the reduction in CTO processing capacity. Most CTO exports are finding their way to Sweden and Finland with lesser volumes to Japan, and this trend is expected to continue. Export volumes should trend lower further in the future as pulp and container mill closures continue in the US and with US CTO processing capacity to be more fully utilized with the Ingevity sale of the North Charleston CTO processing plant.
- Oleoresin production in Brazil is in the off-season. Expensive container freight costs have weighed on what might otherwise be higher Brazilian gum rosin derivative exports, particularly to the US. The current 50pc tariffs on Brazilian exports to the US is providing further headwinds to any increased volumes.
- Rosin ester producers in China are looking to gum rosin imports as a cheaper alternative to domestic gum rosin to help meet feedstock requirements. Indonesia and Vietnam continue to supply most of these gum rosin imports, but we could see a further increase in volumes from Brazil and Argentina if pricing is supportive.



Tackifying Resins

Natural terpene-derived resins

Supply

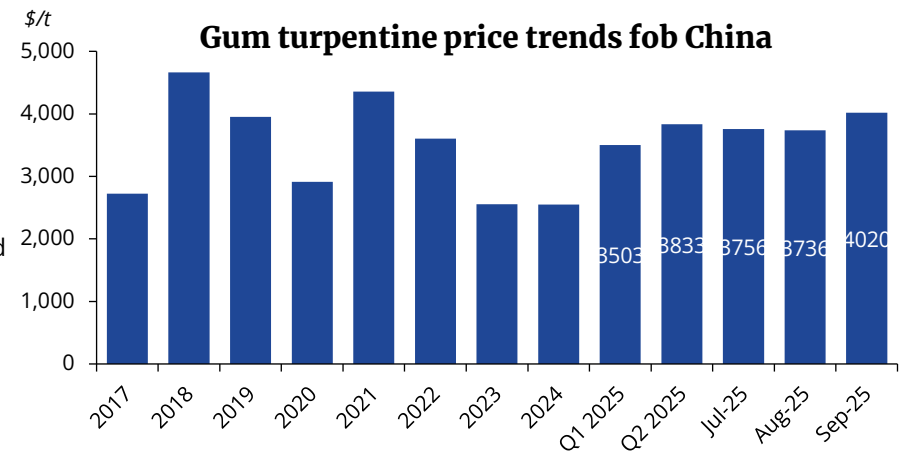
- Supply of gum turpentine in China is slowly increasing with the progression of the current tapping season, but the amount of new supply is well below expectations and supportive of higher prices.
- Gum turpentine pricing saw mid-September offers at Yn29,000/t (\$4,082/t) for *Pinus massoniana* material and Yn29,300/t (\$4,124/t) for super grade *Pinus elliotti*, both exw Guangxi.
- Indonesia, Vietnam and Brazil continue as the dominant gum turpentine exporters to China in 2025. Vietnam and Brazil were the largest gum turpentine exporters to China for 2024 and 2023, supplying 76pc of the import volumes during 2024.
- Brazilian supplies of gum turpentine will remain more limited with lower gum rosin processing rates during the off-season, which is providing support for Brazilian gum turpentine pricing to move higher. Several Brazilian gum turpentine exporters are on the sidelines amid uncertainty over US trade policy and tariff levels while US consumers may look elsewhere including Argentina for supply to avoid the 50pc tariffs on imports. The fire at the Pinus Brasil facility noted in the previous slide did not impact the company's gum turpentine storage tanks, but with no oleoresin processing capability due to the fire, future gum turpentine production would also be in jeopardy.
- Brazilian exports of gum turpentine were 46pc lower in August than July at 1,175t with India, Mexico and Japan seeing most of the exports along with some volume to France and China.
- Average orange juice sales have decreased 13.1pc year-over-year according to the 9 August data released by the Florida department of Citrus in the US, which is not helpful for increased availability of d-limonene derived from those sources.

Demand

- China's gum turpentine market continues to see softer downstream demand during the current tapping season. Stronger feedstock pricing and lower inventories continue to provide support, along with improved sentiment since last month.
- Pinus massoniana* gum turpentine prices in China averaged \$3,736/t fob in August, down \$20/t from July. September fob prices are currently averaging \$4,020/t and have moved higher since the end of the last month.
- YTD through July (the latest data available), Chinese gum turpentine imports were 4,612t, up 88pc from the same period of 2024. Average pricing for July imports of 612t was \$2,630/t, much below domestic pricing levels but above June import pricing levels.
- Brazilian gum turpentine export demand has been steady in September with limited supply and with most export volume destined for the Indian, Chinese and Mexican markets. Domestic pricing in Brazil is higher with balances remaining tighter and feedstock costs higher.
- India remains the largest export destination for Brazilian gum turpentine and received 50pc of total Brazilian exports in 2024 and 41pc of the exports YTD through August. Brazilian gum turpentine exports to Mexico jumped by 58pc for 2024 and this trend is continuing for 2025 with exports up 34pc YTD through August versus 2024. Exports of Brazilian gum turpentine to the US are down by 41pc versus 2024. Brazilian gum turpentine exports to the US had increased for 2024 as compared to 2023, up by 54pc at 3,713t. The current import tariffs at 50pc are resulting in much reduced exports from Brazil to the US.
- Argus assessed Brazilian *pinus elliotti* gum turpentine pricing on 15 September at \$3,025/t fob, up \$50/t from mid-August.

Outlook

- Supply of domestic gum turpentine in China is increasing slower than initial expectations during the current tapping season, with prices higher since the end of last month. With reduced inventory, prices have been on the upswing despite sporadic buying interest.
- With current domestic gum turpentine pricing, China will continue to import volumes from exporters at prices much below those of the domestic gum turpentine market. Indonesia has provided most of the import volumes for China YTD. Brazil was the leading supplier of gum turpentine volumes to China during 2024,
- India continues as the largest export market for Brazilian gum turpentine, but with growing volumes destined for the Mexican market. Brazilian gum turpentine exports to the US were higher in 2024, with very modest volumes having moved in 2023. This had been expected to continue during 2025, but YTD exports to the US have dropped versus 2024 and with the current import tariff regime could drop much further.



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- 8. Appendix**

Polymers

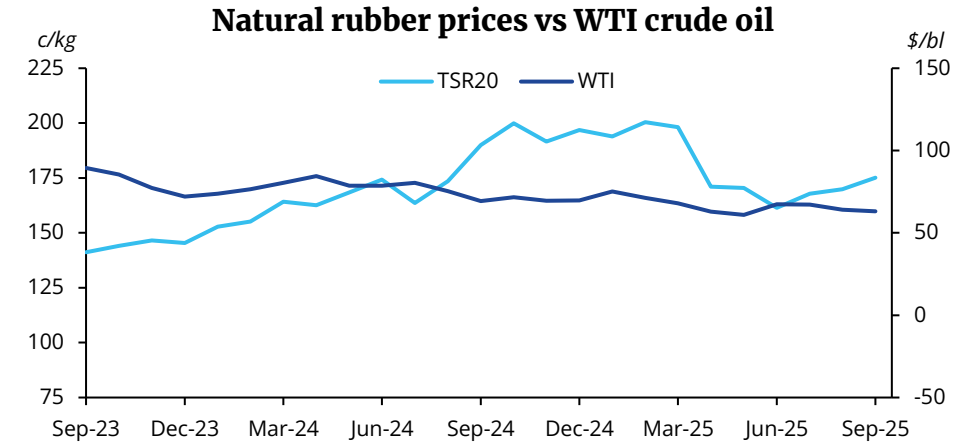
Natural rubber (NR)

Supply

- TSR20 natural rubber (NR) futures on the SGX settled at \$1,748/t on 16 September, a slight decrease from prices earlier in the month which peaked at \$1,789/t on 5 September. Prices have averaged \$1,750/t month to date in September. Most of the recent oscillations in Asia's rubber futures prices were attributed to concerns over supply disruptions from Thailand from escalation of the conflict between the world's largest producer and Cambodia. Resolution of the conflict is not yet in sight, but a cease fire has been in place since August.
- The top five exporting countries of Thailand, Ivory Coast, Indonesia, Viet Nam and Malaysia have accounted for 90pc of all NR exports YTD through June. Total NR exports from all nations total 4.235mn t YTD, about 1.1pc below last year's levels. These same five countries accounted for 86pc of global natural rubber exports in 2024.
- Global natural rubber prices registered mixed price movements in July, according to the 29 August release by the Association of Natural Rubber Producing Countries (ANRPC). Natural rubber prices experienced a fluctuating trend due to several factors such as trade tariffs, geopolitical tensions, along with adverse weather conditions affecting production.
- Recent updates from ANRPC member nations indicate that global natural rubber (NR) production is projected to rise modestly by 0.5% in 2025 compared to 2024.

Demand

- Demand for natural rubber is expected to grow by 1.3pc in 2025 according to the 29 August ANRPC release. This anticipated growth occurs amid increasing worries about a possible global economic slowdown, driven by the complexities of U.S. tariff policies and a forecasted decline in demand growth. Rubber producing countries believe 2025 is shaping up to be one of the slowest years for global economic expansion since the pandemic, largely due to the ripple effects of U.S. tariff hikes.
- The European Tyre and Rubber Manufacturers' Association (ETRMA), together with key European industry associations from the food, feed, forestry, chemicals, publishing, and manufacturing sectors, has co-signed a joint letter calling on the European Commission to urgently clarify the next steps for implementing the EU Deforestation Regulation (EUDR). Co-signatories to the letter expressed concerns that speculation around potential amendments, delays, or simplification of the Regulation is hampering legal certainty and planning. The letter reaffirms that many businesses have already made significant investments to align with EUDR requirements. Without clear direction, the signatories believe there is a risk of serious disruptions to supply chains essential to European industry, including tires, automotive parts, construction materials, food and feed, hygiene products, books, and more.
- Japan-based tiremaker Bridgestone is laying off workers at its off-the-road tire plant in Bloomington, Illinois, as part of a strategy to exit unprofitable segments of the market. This marks the third Bridgestone tire plant in the US to recently cut jobs, along with an agricultural tire plant in Des Moines, Iowa, and a truck and bus tire plant in LaVergne, Tennessee. See the *Industry News* section for additional detail.






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Polymers

Polyisoprene (IR)

Supply

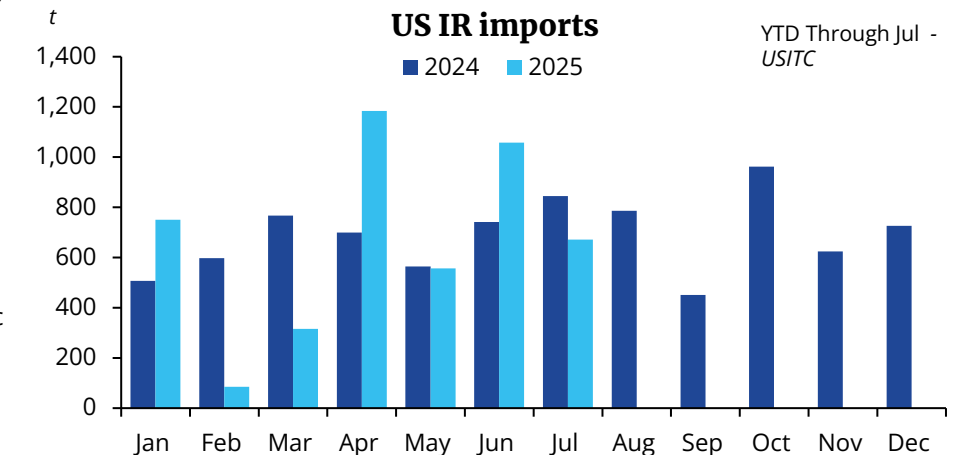
- Chinese IR production is much weaker from last month, with ongoing outages at Fushun Yikesi, Tianli and Sunion.
- US exports of IR totalled 1,765t for July and were 5.3pc lower relative to the same period in 2024, with export volumes to Canada and Mexico the strongest. For 2025 YTD through July, US exports of IR are 15,899t, down 5.3pc from 2024. Most of this export volume will be used in tire production with smaller volumes to medical applications.
- US import volumes of IR were 672t during July and 4,622t YTD for 2025, with imports remaining very weak overall with reduced Russian IR exports to the US. Japan remains the largest supplier of IR to the US (44pc of the total), with much of this volume more specialized medical grades of IR. Average CIF pricing for US IR imports from Japan was \$4,580/t in July.
- IR export volumes from Singapore are trending higher as the new Cariflex plant ramps up operation, with 2,333t of exports YTD through August per GTT data, up 506pc from the same period of 2024, and will grow further during the balance of 2025. August IR exports were 562t.
- Japanese production of IR should be normalized with Zeon returning to operation in early August after an extended outage.
- Russian IR exports totalled 156,534t for 2024 YTD through November (the latest Russian data available), up 59pc from the same period in 2023. We could see some natural rubber imports for domestic tire production in Russia replaced with isoprene rubber which will help sustain higher IR production at domestic producers. With NR futures prices weaker since late March, the economics of replacing NR with IR are also weaker but would reduce Russian reliance on NR imports for tire production.
- Isoprene rubber exports from Brazil jumped to 648t in August. IR export volumes are tracking 30pc below 2024 volumes YTD at 6,034t, with much of this decrease likely attributable to the start-up of the noted IR latex capacity in Singapore.

Demand

- Japanese exports of IR, often used in medical and other higher end applications, are tracking 8.7pc lower YTD through July in 2025 versus 2024 at 24,119t. Japan exported 3,080t of IR in July, down 10pc from the same period in 2024 although a portion of this could be attributable to the Zeon IR outage.
- Chinese demand for IR was stronger early in 2025 with improved demand into tires. NR prices have moderated overall since end March, but with IR pricing slightly higher from last month with NR pricing and was most recently seen at 14,000 RmB/t (\$1,971/t). Operating rates for tire producers have improved slightly, but domestic demand for IR is still lower with demand for the higher grades of tires utilizing IR being impacted more than lower grade economy tires by the current operating rates.
- IR demand appears to be flat to slightly stronger in the US in 2025 versus 2024, with imports of isoprene feedstock in support of IR production going to a larger IR domestic producer seen during 2025 YTD supplementing their own isoprene production.
- Russian origin landed IR exports (based on GTT mirror data from all receiving countries) have totalled 117,387t YTD through July for 2025, up 11pc from 2024. European imports of Russian IR have been closer to zero as expected since sanctions were full implemented 1 July of last year. Much of the Russian IR export volume (71pc) is finding its way to China and to a lesser extent Turkey (14pc). Smaller volumes are flowing to Brazil, Thailand and Mexico. The EU is importing volumes of IR from Japan, the US and China, but YTD these represent just 24pc of 2024 volumes for the same period.
- China has imported 83,025t of Russian IR through July of 2025, up 130pc from the same period of 2024. This represents over 95pc of all Chinese IR imports YTD for 2025. July imports of Russian IR to China were 17,870t, up 291pc from the same period of 2024, and 188pc above the previous month. Average pricing for Chinese IR imports from Russia was just \$1,300/t (cif basis) for July, much below domestic pricing and lower from June pricing.
- Overall IR import volumes for China are up 114pc YoY through July as China continues to increasingly rely on imported IR to meet domestic demand while at the same time exporting some IR to southeast Asia and India.
- China and the US see little trade of IR between the two countries with the current round of the trade/tariff wars between the two countries expected to have little impact on trade flows.

Outlook

- Russian IR volumes continue to be offered at very aggressive prices primarily to China. China continues to export volumes of IR to India and other southeast Asia-Pacific countries while their imports of IR from Russia continue to grow at a much faster rate this year.
- Sibur in Russia is examining replacing natural rubber imports with additional domestic isoprene rubber production, which would allow for higher operating rates than at present for Russian IR producers and help make up for the lost European demand. Weaker NR pricing since earlier in the year will provide some economic headwinds to these plans.
- Overall demand for IR has dropped with European sanctions on Russian product. The US will continue to be a smaller exporter of IR, primarily from Goodyear. Only more minimal volumes of IR find their way to Europe from the US but export volumes to Romania are growing.
- Global IR latex production continues to increase with the recent start-up of the Cariflex Singapore unit serving the healthcare and medical sectors. Brazilian exports of IR latex have dropped with the additional IR latex capacity online in other regions but should grow in the future as organic demand grows for IR latex.



Polymers

SIS

Supply

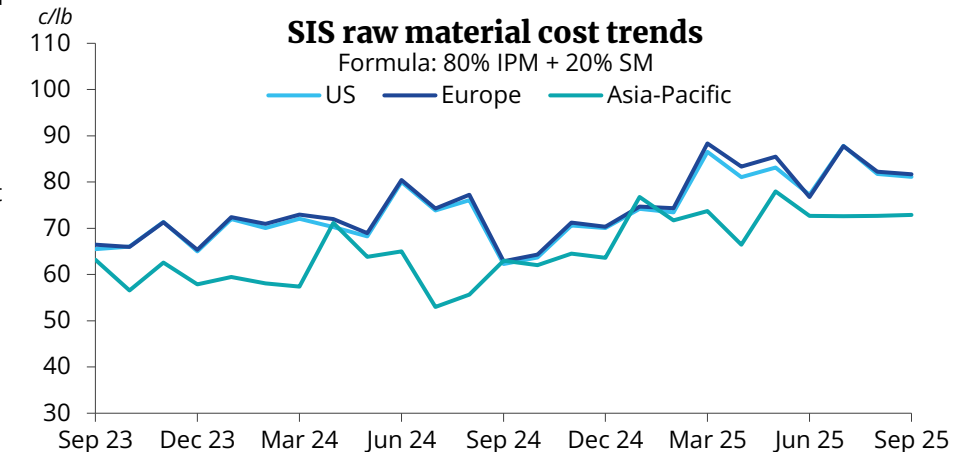
- Overall rates for SIS producers in China remain reduced, with Luhua at Zhangzhou restarting after a planned turnaround, and with larger producers Baling and Jinhai controlling output to maintain balance in the market. TSRC, Sunion, Jusheng and Luhua (Zibo) are all operating. Average SIS operating rates remain around 70pc at present. Jinhai will take an SIS outage in later September along with the upstream isoprene units. This outage was delayed from early September.
- New capacity for SIS and SEPS in China will start-up in 2025, reducing overall operating rates. Jinhai has commenced operations this month on the fourth SBC line at Ningbo. Sinopec Baling should start-up new SIS/SEPS capacity in Shanghai before the end of October. Ecisco is also expected to start-up their SIS/SEPS line at Jieyang City in October.
- Zeon has returned to normal SIS operation as of early August after a planned turnaround with upstream operations.
- Operating rates at US domestic SIS producers should continue to remain on the tepid side overall with more limited export opportunities and challenging cost economics with feedstock isoprene pricing stronger in 2025. SIS flows from China to the US are expected to remain more minimal with tariffs much higher on Chinese imports than for the export competition.
- Production of SIS in Europe remains minimal to close to zero with reduced volumes of feedstock isoprene having been exported to the region to facilitate production during 2024, and only 1,216t of isoprene exports to Italy noted thus far this year, with all the volume originating in China.
- SM feedstock spot pricing is lower in the west and lower in Asia-Pacific during September relative to August. US pricing was at \$813/t fob USGC on 18 September. European spot pricing was \$817/t fob ARA as of 18 September. Asia-Pacific spot pricing was lower at \$860/t cfr east China as of 18 September.
- SIS exports from Taiwan and Japan to Europe and the US are likely to continue under the current tariff regime along with Chinese exports to Europe. Margins on SIS exports to the west remain weak, with freight costs trending higher this month for US destinations.
- US retaliatory tariffs are currently 15pc for Japan and 20pc for Taiwan under announced trade deals. The retaliatory rate for China is currently 10pc in effect until 10 November when it will increase to 30pc in the absence of a finalized trade deal unless amended by the US administration, all on top of existing section 301 tariffs.

Demand

- SIS global demand remains weaker thus far in 2025. SIS demand into the tapes and labels markets is well below the recent peaks of 2021 and early 2022. The market in all regions is expected to take several more years to return to the demand levels seen during that period.
- Domestic ex-plant spot pricing for SIS in China is higher from last month with isoprene costs flat to slightly higher but with market supply more constrained from several larger producers and was seen most recently at 16,400 RmB/t (\$2,309/t +/-) for ex-plant east China. Domestic demand remains tepid, but larger suppliers are providing some support to the market through management of production rates.
- Spot container freight rates to the US have moved higher thus far in September. Rates were seen at \$3,368/FEU for main port Asia to the USEC, with prices to the USWC closer to \$2,309/FEU according to the latest weekly Freightos data. Rates below these numbers remain possible where contract or regular movements are involved. Panama canal operations remain normalized thus far this year unlike early last year.
- Spot main port Asia to northwest Europe container rates have moved slowly lower over the last month and were seen near \$2,585/FEU. Nearly all traffic continues to reroute around South Africa instead of transiting the Suez with its accompanying risks. European SIS demand will continue to be serviced primarily by Chinese and other Asia-Pacific producers who will incur these freight rates.

Outlook

- Global operating rates for SIS remain reduced awaiting longer term demand improvement from the tape and label sector. Chinese domestic demand for SIS remains tepid. Margins will remain squeezed for producers for the foreseeable future given the global surplus of capacity in a weaker demand environment. More elevated isoprene feedstock costs should carry into the fourth quarter before more length on IPM balances should begin to weigh on pricing.
- New Chinese capacity for SIS/SEPS from the Baling/Shanghai Petrochemical JV, Jinhai and Ecisco has or will come online during the latter part of 2025, providing further surplus capacity to the market.
- Economics for US SIS producers shipping for sale outside of the US will continue to be challenging with competition from Chinese and other Asia-Pacific producers. Sales in the US market will continue to be protected by US tariffs on Chinese SIS imports. European SIS production is expected to be very minimal at best with Europe relying almost exclusively on imports to meet demand, dominated by supply emanating from Asia-Pacific.



Polymers

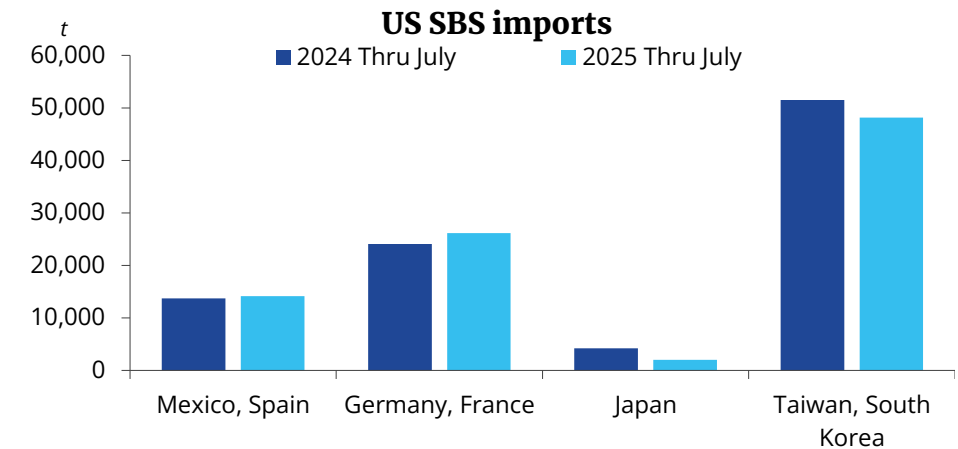
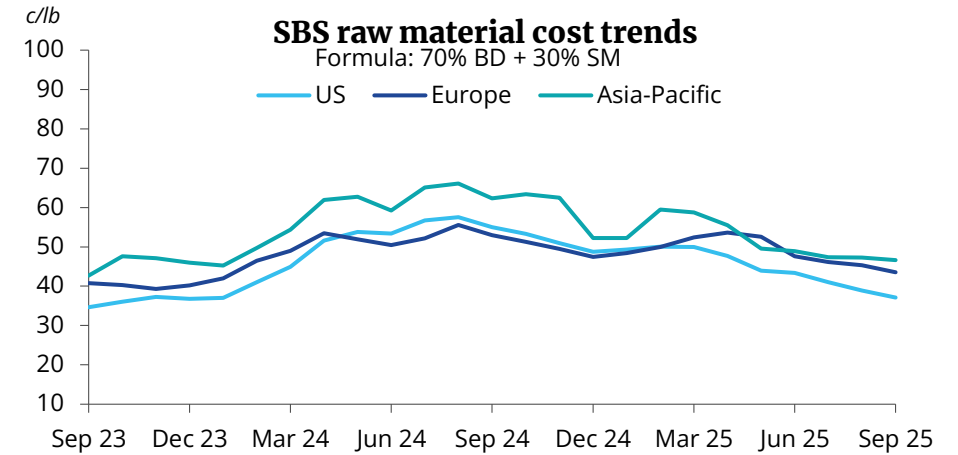
SBS

Supply

- SBS feedstock costs in Asia-Pacific are very slightly lower since later August with spot BD and styrene pricing. Feedstock BD pricing movements are lower in the west with September BD contract pricing in the US and Europe both lower from August. Styrene pricing is lower in both Europe and the US during mid-September versus later August.
- In China, overall SBS operating rates have been steadier but reduced with integrated producers running at the highest rates. Most major SBS producers have at least some idled capacity. Luhua Zhangzhou is restarting after a planned turnaround in July/August.
- SBS supply capacity will increase in China with the start-up of new SBS/SEBS capacity from the Sinopec Shanghai/Baling JV likely to occur in September/October, and new capacity from Petrochina Guangxi starting up in the fourth quarter
- Domestic operating rates in the west are improved as construction and road working activity continues during the summer/early fall months.
- Europe is becoming increasingly dependent on imports from outside the EU to balance their SBS demand as the region is now in a net import position. Korea (31pc), Taiwan (30pc), and China (20pc) are the largest SBS exporters to the EU YTD in 2025, which imported 116,774t of SBS during 2024. Imports to the EU are 4.1pc higher YTD through June versus 2024 at 66,401t.
- Domestic SBS producers in the US continue to see significant import competition from Asia-Pacific, Europe and Mexico, but these flows could yet change once import duties are finalized during ongoing trade negotiations. Minimal volumes of SBS currently flow to the US from China and represented less than 1,000t of imports during all of 2024.
- Russian SBS exports for 2024 YTD through November totalled 99,629t, the latest Russian export data available, up 69pc from the same period of 2023. Russia substantially increased SBS exports to China, despite the surplus production capacity available in that country, with Turkey also receiving much increased volumes.

Demand

- SBS consumption in China for modified asphalt is improved as we enter the fall period, but demand in other sectors including footwear and residential construction remains weaker. Recent domestic spot SBS pricing is slightly lower from the end of last month and seen recently at 12,600 RmB/t +/- (\$1,774/t +/-) ex-plant for south and east China.
- July US SBS imports were 13pc lower than June at 13,355t and are down 3.3pc YoY as we progress through the peak demand period. Imports from Taiwan, Germany and Mexico are higher while those from South Korea, France, Japan, Spain, and China were all lower. South Korea has accounted for 35pc and Taiwan 19pc of all US imports through July of 2025. US imports of SBS from Russia remain very minimal.
- The average value of SBS imports to the US in July was \$2,360/t on a CIF basis, slightly higher from June.
- European SBS demand remains lower with slower economic growth and production. European SBS exports to outside the EU are 20pc higher for 2025 YTD through June versus 2024 at 39,537t, but with imports to the EU noticeably higher than exports thus far in 2025, continuing last year's new annual trend. The US has accounted for about 41pc of the European SBS exports to outside the EU in 2025
- EU imports of SBS from Russia have dropped to near zero with the full implementation of sanctions on synthetic rubber imports from Russia effective 1 July of last year, with Korea, Taiwan and China supplying most of the volumes in place of Russia, with volumes from Mexico and the US also noted.



Polymers

SBR

Supply


- Asia's synthetic rubber futures dropped this week, but with the physical market remaining more stable.
- The BR2509 futures contract in Shanghai Futures Exchange closed at 11,445 yuan/t on 19 September, down from Yn11,570/t the prior week.
- eSBR 1502 dropped to 12,000-12,100 yuan/t, down from Yn12,100-12,200/t the previous week. eSBR 1712 was stable from the prior week at Yn11,000-11,100/t.
- PBR prices were stable at Yn11,500-11,700/t.
- South Korean eSBR1502 was offered at \$1,550/t cfr this week. South Korean PBR was offered at \$1,650/t cfr.
- Conflicting claims over the Emerald Triangle, where the borders of Thailand, Cambodia, and Laos meet, have resulted in rising tensions in southeast Asia. August into September has seen an extended cease fire, but tensions remain high in the region with both Thailand and Cambodia accusing the other of violations of the cease fire agreement.


Demand

- Replacement of natural rubber with synthetic rubber had decreased with natural rubber pricing during the first half of the year, although recent geopolitical events in southeast Asia have the potential to provide volatility to NR pricing.
- Tire company operating rates in the west remain mixed amongst the top tier producers with weakening demand for synthetic rubber into tires in China. This remains true for higher grades of tires in China consuming much of the synthetic rubber.
- US emulsion styrene butadiene rubber (eSBR) 1502 and 1712 mid-September pricing is slightly lower from this time last month at \$1,786/t and \$1,784/t, down \$24/t in both cases. The September prevailing US BD contract price is lower versus August at 36.5¢/lb, down 0.75¢/lb.
- European eSBR 1502 and 1712 prices decreased to \$1,923/t and \$1,841/t respectively for August, a decrease of \$19/t and \$20/t, respectively, from the same time last month. The September European monthly contract price for butadiene is 15€/t lower from August at €835/t.
- A lack of container space had been keeping freight rates higher for exports from the Asia-Pacific region. Transpacific rates to the US have retreated overall since June despite increasing rates this month. Rates to Europe from Asia-Pacific remain more elevated relative to earlier in the year with Middle East geopolitical events frustrating rates from decreasing faster.

Outlook

- SBR demand in Asia-Pacific is weaker in 2025, with margins depressed for producers. Elevated natural rubber pricing had generated some increased synthetic rubber demand and improved margins for producers but with NR prices moving lower overall since March amidst trade tensions and a more uncertain economic outlook. This is weighing on synthetic rubber pricing.
- Elevated container freight costs continue to negatively impact inter-regional movements. Rates are now in an overall downward trend after the recent turmoil period resulting from the ever-changing tariffs. Middle East geopolitical events are likely to provide some longer-term support for rates.
- Natural rubber futures and in turn SBR pricing have retreated since earlier in the year. Geopolitical events in Asia-Pacific and more specifically Thailand do have the ongoing potential to induce some volatility into the NR futures market which is likely to flow to the synthetic rubber markets.





Argus Butadiene Outlook

 24-month rolling price forecast and forward-looking analysis of global butadiene markets.

[Find out more](#)

Polymers

Unsaturated polyester resins (UPR)

Supply

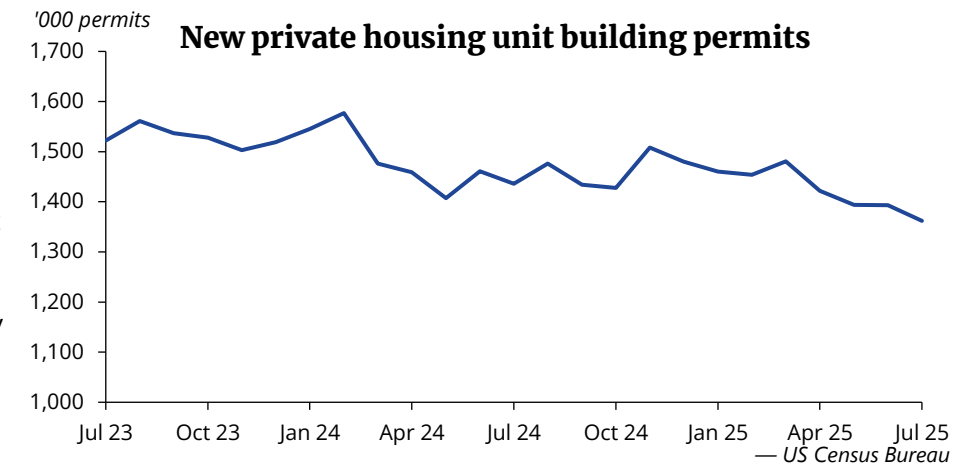
- UPR production rates in China remain slightly improved in the early fall period and in the overall range of 35pc. Production for maleic grades in particular was noted as stronger in China. Rates for western UPR producers remain much reduced thus far in 2025 as they were during 2024.
- Domestic UPR spot pricing in China is close to flat thus far in September from the previous month and was most recently seen in the 7,300 - 7,600 RmB/t range (\$1,028/t - \$1,070/t) with prices on the lower end of the range in east China and the higher end in southern China.
- Raw material pricing in China is weaker this month with phthalic anhydride continuing to price out well above maleic anhydride and with some improvement in demand for maleic grades as a result. Pricing for MA and PA is close to flat from this time last month. DCPD pricing in China was slightly stronger in September with some improved buying interest. Spot SM feedstock prices were lower in the west and slightly higher in Asia-Pacific and were seen recently for the US at \$813/t, Europe at \$817/t and Asia-Pacific at \$860/t cfr east China.
- DCPD feedstock supply for UPR consumption in the US continues to flow mostly from producers who can make ultra-high purity DCPD. We expect some DCPD imports to the US to continue in support of UPR production, particularly when UPR demand increases further in the future.

Demand

- UPR demand has improved slightly as China enters the fall period. Weak construction activity in China is keeping overall demand lower. Better UPR demand is seen lately in the auto sector, which normally makes more use of phthalic based grades. Demand in the west remains weaker and remains well off the recent historical peaks seen in 2021 and 2022.
- The US Census Bureau and US Department of Housing and Urban Development release on 17 September showed seasonally adjusted August new building permits for privately owned housing units were at 1.312mn. This is 3.7pc below the revised July rate and an 11.1pc decrease compared to August 2024. Housing starts decreased 8.5pc from July to August and were down 6.0pc from August 2024. Housing completions increased 8.4pc from July to August but dropped 8.4pc from August 2024.
- The US Federal Reserve reduced target interest rates by 25 basis points on 17 September and indicated two more interest rate cuts are likely in the balance of the year. Smaller reductions of 25 basis points seem more likely until target rates return to the 3-3.5pc range. An increase in US inflation rates during June had the Fed continuing to delay interest rate reductions but weaker US job creation data finally convinced them to move rates lower. Interest rates at the more elevated levels continue to limit demand for purchases of larger discretionary items that help drive UPR consumption including housing, autos and recreational vehicles, but US inflation still remains above the target 2pc rate, tracking closer to 3pc as noted.

Outlook

- Figures from the 16 September US National Association of Home Builders/Wells Fargo Housing Market Index release show home builder confidence at 32 in September, unchanged from August.
- The China National Bureau of Statistics (NBS) real estate investment statistics for January to July 2025 showed China's national investment in real estate development was down 12pc year-on-year. The real estate development climate index, often referred to as "China's real estate climate index" was 93.34 for July.
- Tariffs on Chinese imports to the US appear likely to remain in place for an extended period going forward but at recently reduced levels as US/China trade talks progress. A further 90-day grace period until early November for the existing tariffs is currently in effect.



Polymers

PE, PP and EVA

PE Supply

- Total US/Canada PE production in August hit a new record of 2,600 ktons, up by 1.1pc from July levels. Exports in August represented 49.1pc of total sales. With production surpassing sales, producers added to inventories in August.
- There is more than ample supply in the European market with many participants – producers, traders, distributors and converters – holding sufficient short-term inventory or looking to reduce inventories as well. Production may be affected at some sites by polymer and cracker maintenance through the fall, but this is unlikely to test the wider supply-demand balance.
- Average operating rates in NE Asia declined to below 80pc with polymer inventories dropping 16pc. Even though the decline in inventory and lower operating rates may provide some temporary relief to oversupply, an estimated 1.5mn t/yr of new PE capacity is expected to come online by the end of 2025, including PetroChina Guangxi's 400,000t LLDPE/HDPE and 300,000t HDPE units, and BASF's 500,000t HDPE unit.
- Regional producers in SE Asia are planning to shut down plants due to over supply. PTTGC in Thailand plans to shut its 400,000t LLDPE in October for maintenance. PRefChem in Malaysia and Lotte Titan in Indonesia unexpectedly shut their 400,000t HDPE and 200,000t LLDPE plants for maintenance. US imports are on the increase, which adds market competition and threatens regional margins.

PE Demand

- Demand continues to be stable in the US, with market participants describing sales levels as 'OK' but not great. No one demand sector is showing strength over another. Buyers are not in a hurry to build up inventories, believing availability will remain plentiful in the near term.
- European buyers are focused on reducing stocks of finished and semi-finished goods. Economic conditions remain challenging, and consumer confidence remains low, with lingering pessimism on the short-term outlook keeping everyone cautious. This has continued to adversely affect demand in segments such as construction, infrastructure, rigid packaging and big-ticket purchases. The flexible packaging segment is in relatively better shape owing to its exposure to fast-moving consumer goods, but demand is still not healthy.
- Domestic consumption in China is generally weak with converters holding cautious attitudes compared with last year. The traditional high demand season starting from August to October may support higher prices, but prices are expected to decline after November as more spot cargoes enter the market.
- Converters in SE Asia have started to restock for downstream consumption as the traditional peak season approaches. However, buying interest is still sluggish with the rainy season and economic slowdown driven by the US tariffs.

PP Supply

- Production in the US is steady, with no major problems with Phillips 66 expected to lift its force majeure in October after rebuilding inventory levels of impact copolymer PP. Overall operating rates in August and September should be below July levels, with producers not wanting to add to inventories before the end of the year. Market participants are expecting buyers to press for lower prices for 2026 contracts, with producers not wanting to have surplus inventories before they initiate those conversations.
- On the European operations side, force majeure remains in place on PP supplies from Orlen Unipetrol's plant in Litvinov, Czech Republic. A planned turnaround is ongoing at Ineos' Grangemouth site in Scotland, which is expected to last throughout September.
- Average operating rates dropped to 79pc in China with polymer inventories down 16pc to 655,000t. CNOOC Ningbo Daxie started up its 900,000 t/yr PP units in the third quarter, with the PP price subsequently hitting a 5-year low. Many plants are now undergoing maintenance. Ningxia Baofeng Petrochemical shut its 500,000t unit and Yulong petrochemical shut a 400,000t plant. With only Guangxi Petrochemical's new unit to come online by end of this year, the oversupply condition may ease a bit during the peak demand season.
- Length in SE Asia regional supplies combined with Chinese export offers are further lengthening overall supply. Lotte Chemical Indonesia's new 250,000 t/yr PP plant is now in stable operating mode, adding more supply to the market. PRefChem in Malaysia also restarted its 450,000 t/yr unit, further adding pressure on the regional producers.

PP Demand

- Demand in September has been slower than expected, with September typically marking the beginning of the US pre-holiday busy season. Some of the weak demand has been attributed to buyers trying to time the market for the lowest point. But underlying economic concerns are also giving buyers pause in building up too much inventory.
- European polypropylene demand is lagging expectations as there has been little evidence of any restocking activity. Participants across the value chain generally have ample inventory and in many cases are looking to reduce inventory levels ahead of the end of year inventory selloff.
- Downstream demand in China remains tepid with subdued purchases of PP resin. During this traditional higher demand season, buying activities are currently modest but are expected to offer some support.
- Market demand is also tepid in SE Asia as buyers hold a wait-and-see attitude in stocking PP resins. The rainy season in September and October is expected to further dampen the market needs. Converters are expected to face more pressure caused by tariffs and will restock only as needed.

EVA Supply

- China's EVA operating rates decreased to 79pc this week from 82pc the previous week. Sinopec Yanshan Petrochemical's 300,000 t/yr of capacity remained down for maintenance. Ningxia Baofeng Energy's 250,000t unit remains down for month-long maintenance. South Korea's H&G plans to start-up a new 300,000t EVA unit before month's end (see the *Industry News* section for further detail).
- US exports of EVA during July were 14,105t, up 6.8pc from the same month in 2024. For 2025 YTD through July, exports are down 10pc from 2024 at 106,025t. Mexico (23pc) and China (18pc) remain the two largest recipients of US EVA exports during 2025, with reduced exports to China accounting for most of the drop in US export volumes YTD and could drop further with the current tariff regime. US EVA export volumes will need to increasingly seek destinations outside of China where production will grow rapidly over the next several years.
- Canadian exports of EVA for July were 7,794t, down 9.9pc from the same period in 2024. EVA exports from Canada YTD through July are 49,940t, down 20pc from the same period of 2024. The US (64pc) and China (30pc) were the recipients of nearly all this volume, with the drop in Canadian exports to the US accounting for the decreased volumes YTD. Exports originate from the Celanese plant in western Canada.
- The EU has exported 61,989 t of EVA outside the region YTD through July, down 40pc from the same period of 2024 with weaker EU production. Thus far this year the EU now a small net importer of EVA as production lags, with exports to Turkey, China and India remaining the strongest.

EVA Demand

- Chinese ethylene vinyl acetate (EVA) prices continued to rise this week. Concerns over tax rebates for PV products dropping below the current 9pc continues to stimulate more converter buying activity which is moving prices higher.
- PV-grade EVA prices were 150Yn/t higher from the previous week at Yn10,800-11,200/t ex-works in east China, with prices 1,050Yn/t higher from this time last month. Foaming-grade EVA grade prices were 50Yn/t higher from the previous week at Yn10,800-11,400/t ex-works in east China, up Yn 350/t from this time last month.
- Price levels for foaming grade imports of Asia-Pacific origin were \$1,250/t - \$1,315/t cfr China, with PV grades at \$1,250/t - \$1,295/t. Prices were up \$15/t and \$23/t respectively from the previous week.
- EVA imports to China for 2025 YTD through July were 432,628t, down by 27pc from the same period in 2024. Imports during July were 51,134t, up 8.5pc from June but down 24pc from the same period in 2024. The reduced quantity of imports continue to reflect the increasing Chinese EVA capacity now operating.

Polymers

PE, PP and EVA

PE Outlook

- Trade with Brazil from the US will be impacted with the anti-dumping duties recently imposed on top of the 20pc import tax previously in effect. This will render US imports uncompetitive with imports from other regions. The US is expected to shift exports to other Latin American countries, and some will move to Europe, particularly if the EU approves a proposal for zero duties for US-origin PE. However, with 10pc of US exports typically moving to Brazil, it may take some time to re-organize trade flows.
- The implementation of zero tariffs on US origin PE imports into the EU remains in legal limbo. The European Commission proposed the zero tariffs on 28 August, along with imports of all plastics from the US categorized under HS codes starting with 39. But the proposal needs to be ratified by majority voting in the European Parliament and by the EU member states. There are indications that the process could be concluded in the next 1-2 months.
- US-origin ethane prices fell by 9pc in August following the resumption of US exports to China in late July. Ethane prices are expected to rise because of higher US LNG prices, which is forecast to pressure margins on ethane crackers.
- Impacted by the reciprocal tariffs, US PE exports to southeast Asia rose to 743,000t in the first half of 2025, up by nearly 22pc against the same period last year. The rise in exports to Southeast Asia is expected to continue with current trade barriers into Brazil and China.

PP Outlook

- Lower interest rates in the US are necessary to give the economy a boost and help to improve demand, particularly for durable goods applications, such as appliances, automobiles and carpeting, which are important in the PP market.
- The European Parliament is considering amendments to the legal proposals underpinning the EU's proposed trade deal with the US, focusing on WTO compatibility and the scope of US goods eligible for zero tariffs. But any changes or a delay in implementation also risk prolonging the uncertainty and more punitive tariffs on European exports to the US. For now, nothing has changed in terms of tariffs or relieving the uncertainty for European polymer markets or the industrial markets that are key consumers.
- OPEC+'s unwinding of some of the crude cuts has lowered crude prices and added pressure on Chinese PP prices. Zhejiang Yuanjin New Materials' 600,000t PP plant and Huajin Aramco Petrochemical's 950,000t PP unit are planning to delay to 2026. This additional 1,550,000 t of capacity will add more competition and pressure on pricing.
- The Indonesian Anti-Dumping Committee (KADI) has been considering a five-year anti-dumping duty on imported polypropylene co-polymers. Currently, with more Chinese PP exports to the region, market producers are facing increased pressure with narrow sales margins. However, with additional duties implied to import PP, downstream buyers may see higher costs.

EVA Outlook

- Export volumes from China continue to grow, primarily for the lower VA content grades. Exports are up 22pc YTD through July versus the same period of 2024. Exports remain widely scattered across the globe to many non-OECD countries.
- EVA imports to China will continue in significant volumes for the next several years until the rapid growth in higher VA content production catches up with domestic demand for the PV sector. Chinese domestic capacity for EVA production will more than double from 2021 to 2025. Current capacity is already estimated at 3.5mn t and could grow by more than 700,000t before year's end with a number of projects nearing completion. 2026 will see significant new capacity additions from a number of producers.
- Competition in export markets will intensify for western and other Asia-Pacific producers as China moves to a surplus position over the next several years. Barring a change in the tariff regime, Chinese EVA volumes to/from the US will remain more minimal. Margins for producers in all regions who export are likely to be pressured lower as Chinese EVA exports grow, following the lead of many other petrochemicals which have seen a surge in Chinese production and export volumes.

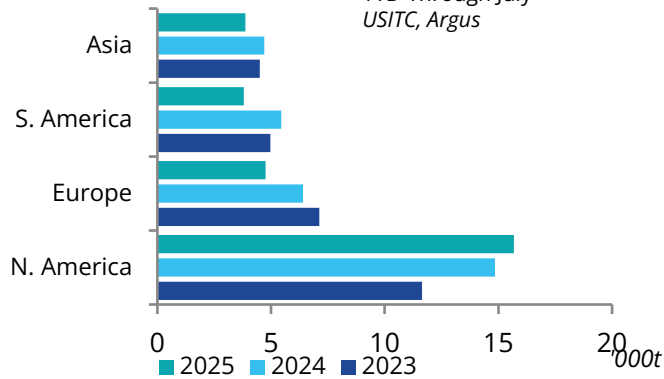
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C5 and HCR Trade Data

US imports and exports

US HCR exports by region

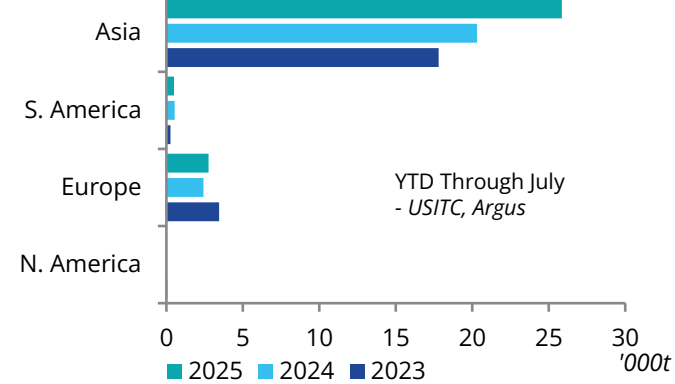
YTD Through July -
USITC, Argus



- US HCR exports decreased to 2,922t in July from 3,480t in June.
- 56pc of all US exports YTD remained within North America. Europe received 17pc, Asia-Pacific 14pc and South America 13pc of exports.

US HCR imports by region

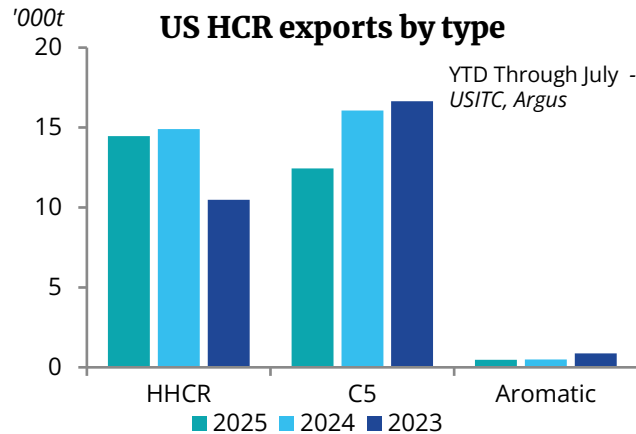
YTD Through July -
USITC, Argus



- 89pc of all HCR imports YTD have originated from Asia-Pacific.
- Europe has exported 14pc more volume of HCR to the US YTD, 2,754t YTD versus 2,419t in 2024.
- Asia-Pacific originated imports accounted for 4,646t of all US imports for July.

US HCR exports by type

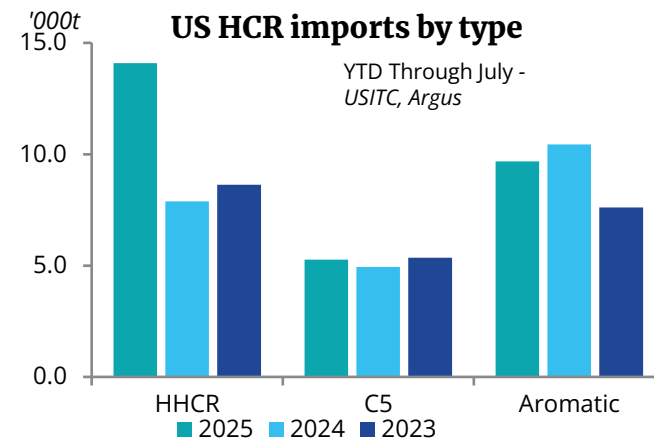
YTD Through July -
USITC, Argus



- Total YTD HCR exports (28,145t) are down 11pc versus 2024.
- C5 exports decreased by 441t and HHCR exports decreased by 98t in July versus June.
- 51pc of July exports were HHCR tackifiers, with another 47pc of the exports being C5 tackifiers.

US HCR imports by type

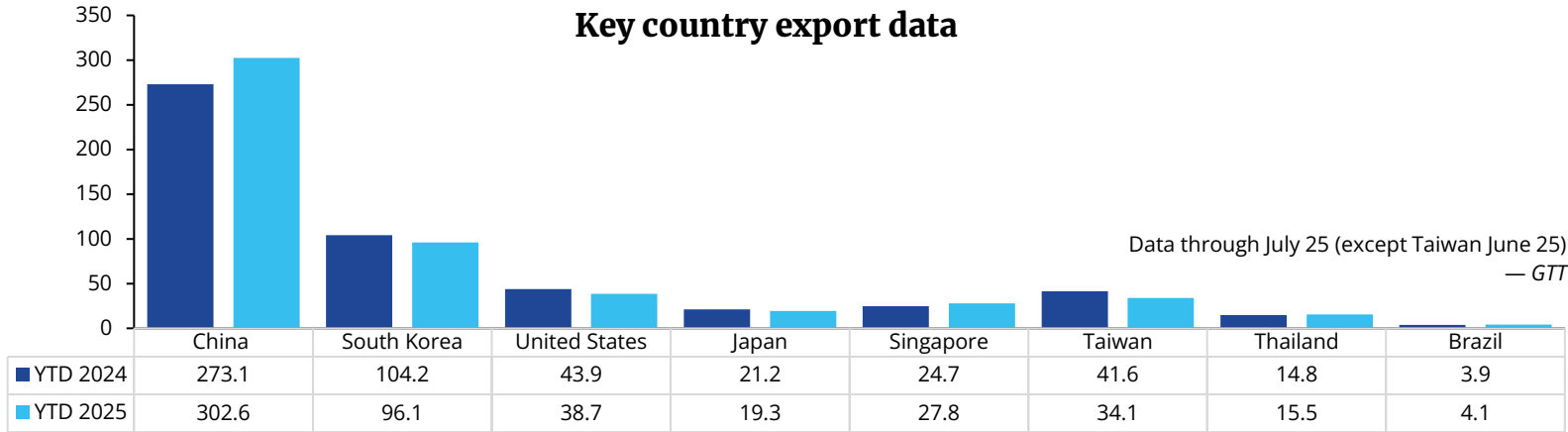
YTD Through July -
USITC, Argus



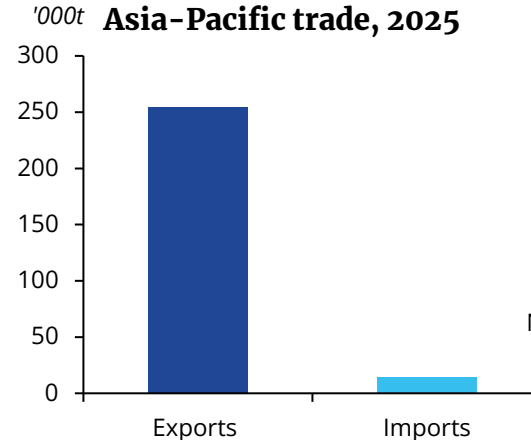
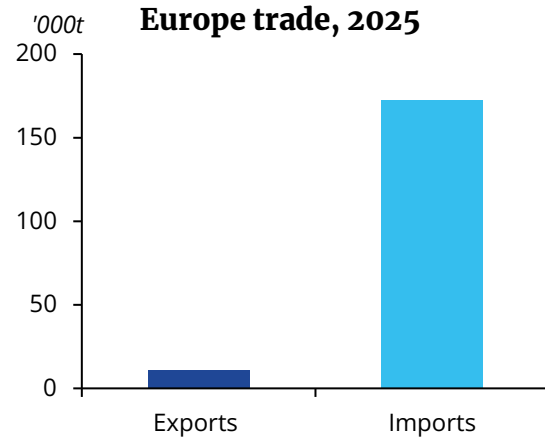
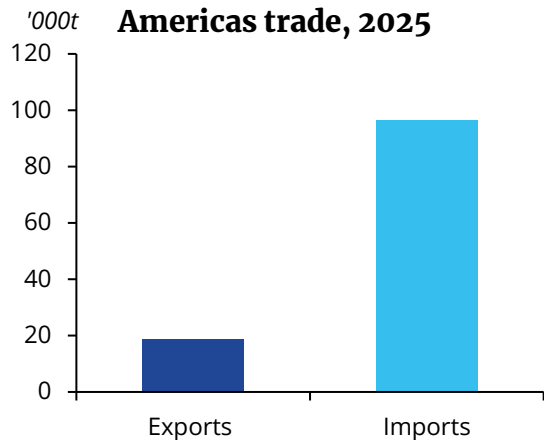
- In July, total HCR imports to the US were 5,018t, which was a large increase from 3,484t in June.
- All forms of tackifiers have seen increased imports in early 2025, with HHCR being the most dramatic with a 79pc increase YTD in imports compared to 2024, much of this volume from South Korea.

C5 and HCR Trade Data

Key country and regional trade data



- Chinese HCR export volumes were up 11pc YTD through July year on year with China accounting for 56pc of all key country exports thus far in 2025.
- South Korea have exported slightly lower volumes than 2024, exporting 8,200t (8pc) less YTD in 2025 than 2024.
- The US, Taiwan and Japan have exported slightly less volume YTD than in 2024.
- Singapore, Thailand and Brazil have exported slightly higher volumes YTD than in 2024.



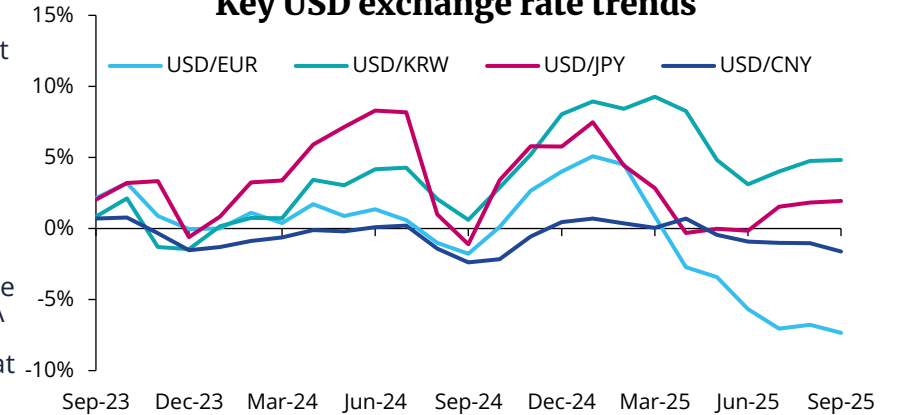
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Economic and Energy Insight

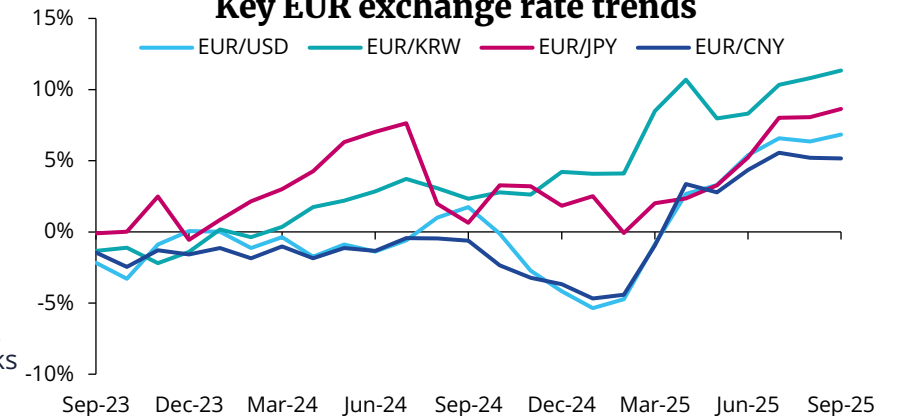
Macroeconomics

- US headline consumer inflation accelerated in August, with so-called core inflation reflecting the pass-through of higher costs prompted by President Donald Trump's tariffs. The consumer price index (CPI) rose by a 2.9pc annual pace, after rising by 2.7pc in July, the Bureau of Labor Statistics (BLS) said Tuesday. The gain in August was above the 2.7pc median estimate of economists surveyed by Trading Economics. Core inflation, which strips out volatile food and energy, rose at a 3.1pc annual pace in August, in line with analysts' estimates and matching the 3.1pc gain in July.
- The US Federal Reserve reduced target interest rates by 25 basis points on 17 September and indicated two more interest rate cuts are likely in the balance of the year. Recent weak employment numbers, along with sharp downward revisions for prior periods, have made the Fed more attentive to the "downside risks" associated with the labor market as it seeks to balance its dual mandate of stable prices and maximum employment. US job growth slowed sharply in August and revisions pushed June into net losses, as mounting uncertainty over President Donald Trump's tariff, immigration and spending policies brought hiring to a near standstill.
- Eurozone manufacturing expanded in August for the first time since July 2022, as production rose for a sixth consecutive month. The HCOB eurozone manufacturing purchasing managers' index (PMI) rose to 50.7 in August from 49.8 in July. A reading above 50 indicates expansion. Germany posted a reading just below 50, but HCOB said the eurozone's largest economy "signaled broadly stable factory operating conditions." The bank said that the recovery remains fragile and that the rise in manufacturing demand was led by domestic markets as new export sales fell for a second successive month. Strengthening domestic demand may be "the best remedy against US tariffs," it added.
- The Governing Council of the European Central Bank (ECB) decided to keep the three key ECB interest rates unchanged. The rates on the deposit facility, main refinancing options and marginal lending facility will remain at 2pc, 2.15pc and 2.4pc, respectively. Inflation currently sits around the ECB's 2pc medium-term target, edging up to 2.1pc in August. The ECB projects headline inflation to average 2.1pc in 2025, 1.7pc in 2026 and 1.9pc in 2027. The ECB also revised its economic growth forecast upward for 2025 to 1.2pc from 0.9pc in June. Growth in the first half of the year was 0.7pc, driven by resilient domestic demand and a strong first quarter. However, second quarter growth was weaker due to a frontloading of international trade ahead of expected tariff increases.
- Resource-rich Indonesia has been hit by some of its worst political unrest for almost 30 years, but the country's vast commodity sector appears to be largely unscathed. Protests against a new housing allowance for members of parliament turned violent over the weekend, leaving up to eight people dead, according to local reports. The protests began in the capital Jakarta but have since spread to many of the country's biggest cities, reflecting discontent over a slowing economy and rising living costs. Indonesian stock markets fell by almost 4pc on 1 September before later recovering, while the rupiah weakened against the dollar. The protests forced Indonesian president Prabowo Subianto to cancel a planned trip to China this week. Prabowo, who took power in October last year, has laid out ambitious plans to boost oil output and has made food security a core focus of his government. Prabowo has reversed some of the perks granted to lawmakers that sparked the unrest, a move that appeared to have defused some of the protests on 1 September.

Key USD exchange rate trends



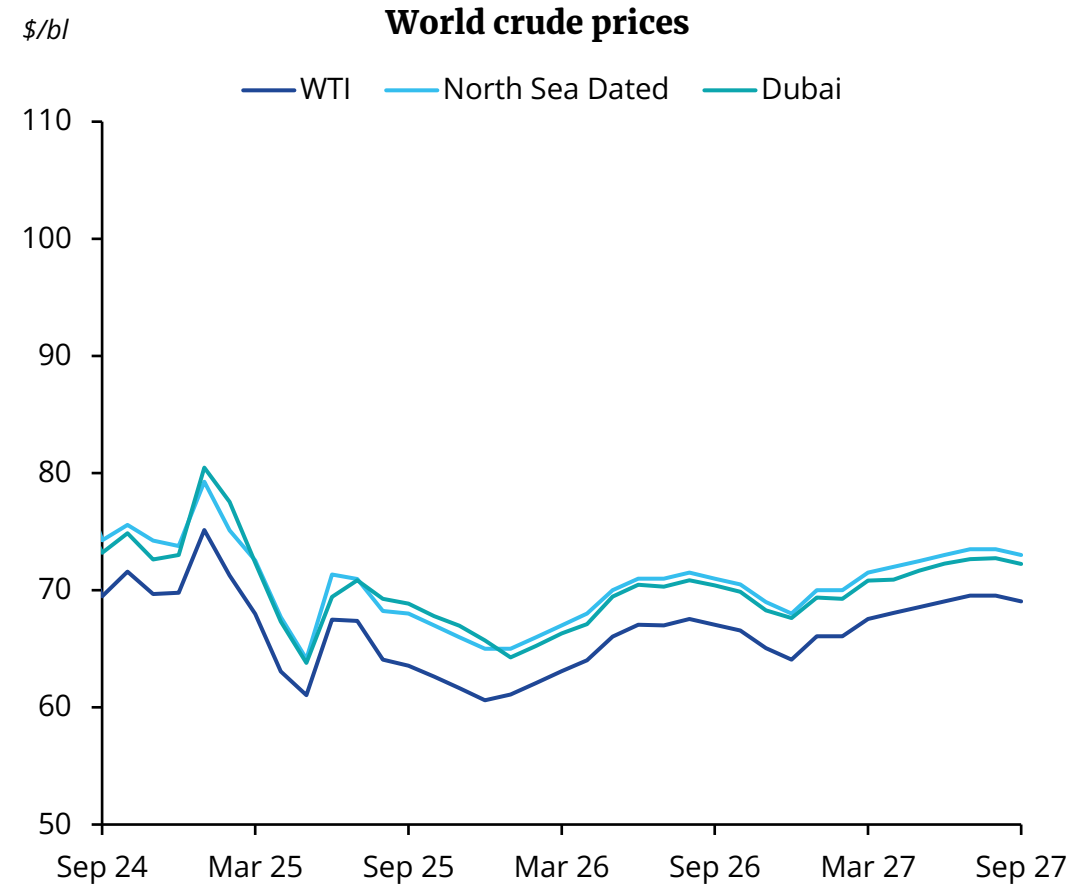
Key EUR exchange rate trends



Economic and Energy Insight

Crude and LPG

- Opec+'s unwinding of its November 2023 production cuts has been achieved a full year ahead of the originally agreed schedule and without significantly weakening prices, encouraging the group to consider unwinding the 1.66mn b/d of cuts introduced in April 2023. The unwinding process so far has coincided with the peak summer cooling season in the Middle East, which has kept around 0.35mn b/d of crude from the export market. Key to Opec+'s resolve is its belief that further unwinding will not result in a huge amount of oil returning to the market, given that the group appears to tailor production to market needs. Prices are expected to remain relatively stable as a result.
- LPG prices have increased on an outright basis, but weak fundamentals are keeping them low relative to naphtha, going against seasonal trends. Chinese LPG demand remains muted, weighed down by high costs and tariffs on US imports, while petrochemical producers are caught between expensive feedstock and weak downstream margins. US LPG production is robust, but sluggish demand has led to rising inventories and slow export growth, even after the new Nederland terminal expansion, although exports will ramp up in the coming months. Inventories are firm globally and continue to build. Prices typically rise in September as buyers begin to build inventories ahead of winter, but already sizeable stocks should prevent prices rising too sharply this year. European prices are increasingly tied to the US market — US product makes up 58pc of Europe's imports. Freight rates are expected to remain steady, so we expect Europe to continue to follow price movements in the US.



Economic and Energy Insight

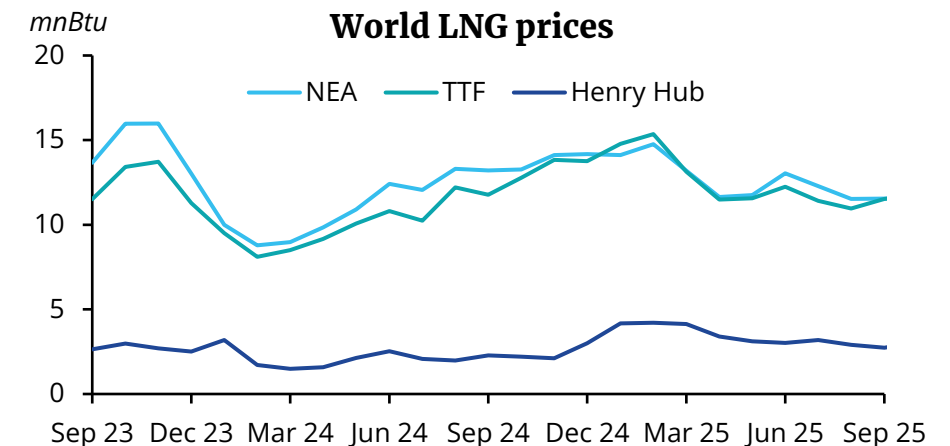
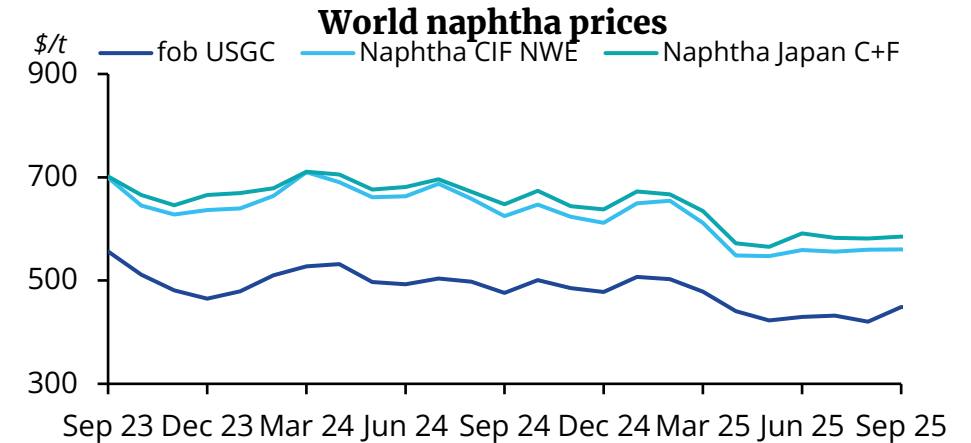
Naphtha, gasoline and natural gas

Naphtha and Gasoline

- The Asia-Pacific naphtha market is tightening because of drone strikes on Russia's key naphtha facilities, further reducing supply already limited by scheduled maintenance at several key Middle eastern refineries. Naphtha cracks in the US Gulf coast have reached a three-month high supported by gasoline blending demand and the anticipation of naphtha exports to Venezuela. But recent problems with Azeri crude contamination are not expected to continue supporting naphtha prices in the coming months, while weaker LPG prices have reduced demand for naphtha feedstock from Europe's flexible steam crackers. Naphtha prices are anticipated to firm at the start of next year once the impact of rising winter LPG demand starts making naphtha more competitive for steam cracking.

Natural Gas and Ethane

- US ethane exports to China have resumed for now. Ethane prices will move higher with natural gas prices as US LNG exports increase this year and next and as we approach winter. Producers remain confident about ethane supply as production has increased despite limited growth in shale oil output.



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- 4. Polymers**
- 5. C5 and HCR Trade Data**
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Industry news

US Fed cuts lending rate by quarter point

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China's industrial and real estate sectors slow in Aug

Read the full article [here](#)

US inflation quickens to 2.9pc in August, core up

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US adds 22,000 jobs in August, jobless rate up

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Mexico central bank raises GDP forecasts

Read the full article [here](#)

US revises down job gains by 911,000 through March

Read the full article [here](#)

EU states in 'intense' dialogue over 2040 climate goal

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Brazil's GDP growth slows to 2.2pc in 2Q

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EU lawmakers weigh changes to US trade deal terms

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Mexico factory contraction eases in August

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German manufacturing output recovers in July

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Plastics Europe urges EU rethink on zero US tariff

Read the full article [here](#)

Opec keeps oil demand outlook unchanged

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WTI crude to fall to \$52/bl by end of 2025: EIA

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Opec+ 8 agree to continue increasing output

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China's oil demand growth to peak in 2027

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ExxonMobil takes aim at Europe's climate strategy

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Trucks dent US vehicles sales in August

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Mexico auto exports up, output down in August

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China's EV output, sales maintain growth in August

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China's August auto sales, output rise

Read the full article [here](#)

EU parliament votes lower vehicles recycle target

Read the full article [here](#)

India's passenger vehicle sales, output fall in August

Read the full article [here](#)

Brazil's Aug vehicle output falls, exports surge

Read the full article [here](#)

Canada suspends EV mandate for 2026

Read the full article [here](#)

Stellantis rolls back on EVs, 2035 EU target under fire

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Bridgestone plans layoffs at Illinois tire plant

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US chemical makers urge tough scrutiny of rail deal

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Petchem producers weigh alternative feedstocks: Appec

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Industry pushes back on EU plastics tax

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Japan's petchem firms to integrate polymer production

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Indian refiners turn to petchems as margins tighten

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Weak margins force petchems reset at Euro majors

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Taiwan's Formosa No.2 achieves on-spec ethylene

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Litvinov cracker, refinery output force majeure lifted

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S Korea's H&G to start up ethylene vinyl acetate plant

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Mainstream to buy Ingevity's South Carolina CTO site

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Brazil esters facility lost, rosin plant ok after fire

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Synthomer Expands APO Production at Longview, Texas

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EU adhesives, sealants volumes to grow through 2030

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Tackifier sellers fear lack of protective measures

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Avery Dennison to acquire Meridian's flooring business

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Kraton, IP agreement includes wastewater, rail storage

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Argus HCR experts



Steve Williams
VP, C5 and Hydrocarbon Resins

Steve Williams has been with Argus since 2020 and has more than 40 years of experience in the petrochemical industry. He spent 28 years with The Dow Chemical Company (now Dow Inc.), a global petrochemical company, as well as seven years with Chemium International, a Houston-based petrochemical trading firm. Mr. Williams served in numerous roles at Dow, including sourcing feedstocks for ethylene production, managing NGL joint venture interests and managing the Americas aromatics and derivatives businesses. As a part of his aromatics business responsibilities, he was exposed to many C5 monomer suppliers and developed an extensive knowledge of feedstock, olefin and downstream operations. Mr. Williams is an expert in pygas-related co-products, including C5 monomers, DCPD and related aromatic processing co-products serving as feed for hydrocarbon resin production.



Simon Sheppard
Analyst

Simon is an analyst in the London Consulting office focusing on hydrocarbon resins. He holds an MSc in Chemistry from the University of Manchester. Before joining Argus, he worked as a chemical emergency responder for the National Chemical Emergency Centre.

Argus Acronyms

• aBCP	asymmetric block copolymers	• EPDM	ethylene propylene diene monomer	• PIPs	C5 piperylene stream
• APAO	amorphous poly alpha olefin	• EVA	ethylene vinyl acetate	• PMR	pure monomer resins
• APO	amorphous poly olefin	• FDA	US Food and Drug Administration	• PP	polypropylene polymers
• ARO	aromatic resin oil (C9 resin feed)	• GDP	gross domestic product	• PSA	pressure sensitive adhesive
• AMS	alpha methyl styrene	• GR	gum rosin	• PSTC	Pressure Sensitive Tape Council
• ASTM	ASTM International, formerly American Society for Testing and Materials	• HCR	hydrocarbon resin	• PV	photovoltaic solar cell
• b/d	barrels per day	• HDPE	high-density polyethylene	• RIM	reaction injection molding
• BD/C4	butadiene	• HEVA	EVA with >18% vinyl acetate content	• SB	styrene butadiene
• bl	barrel (42 US gallons)	• HHCR	hydrogenated hydrocarbon resin (waterwhite)	• SBCs	styrenic block copolymers
• BLS	black liquor soap	• HMA	hot-melt adhesive	• SBS	styrene butadiene styrene block copolymer
• bn	billion	• HMPSA	hot-melt pressure sensitive adhesive	• SBR	styrene butadiene rubber
• BOPP	biaxially oriented polypropylene	• HSBC	hydrogenated styrene block copolymer	• SEBS	styrene ethylene butylene styrene block copolymer
• BR	butadiene rubber (polybutadiene)	• IED	isoprene extractive distillation unit	• SEPS	styrene ethylene propylene styrene block copolymer
• Btu	British thermal unit	• IIR	isobutylene isoprene rubber (butyl rubber)	• SIS	styrene isoprene styrene block copolymer
• BTX	benzene, toluene, xylene	• IPM	isoprene monomer	• SM	styrene monomer
• C2	ethylene	• IR	isoprene rubber (polyisoprene)	• SR	synthetic rubber
• C3	propylene	• LDPE	low-density polyethylene	• st	short ton
• C4/BD	butadiene	• LPG	liquefied petroleum gas (propane, butane)	• t	metric ton
• C5 HCR	piperylene based C5 aliphatic tackifier resins	• mn	million	• t/yr	tons per year
• C9 HCR	aromatic resin	• Mn	number average molecular weight	• Tg	glass transition temperature
• CAGR	compound annual growth rate	• mPO/mPP/mPE	metallocene catalyzed polymers	• TOR	tall oil rosin
• CC5	crude C5 stream	• MTO	methanol to olefins	• TPO	thermoplastic polyolefins
• CGR	Chinese gum rosin	• Mw	molecular weight	• UPR	unsaturated polyester resins
• CI	coumarone-indene	• NDG	Notre-Dame-de-Gravenchon, France	• USG	US gallon
• COC	cyclic olefinic copolymer	• NGL	natural gas liquids (ethane, propane, butane, condensate)	• WBPSA	water based pressure sensitive adhesive
• COP	polycyclic olefin polymer	• NR	natural rubber	• WCP	wax cloud point
• CPD	cyclopentadiene	• OBC	olefin block copolymer	• WW	waterwhite
• CST	crude sulfate turpentine	• OCP	oil cloud point	• WWT	waterwhite tackifier resin (HHCR)
• CTL	coal to liquids	• OMS	odorless mineral spirits	• VA	vinyl acetate
• CTO	coal to olefins	• PA	phthalic anhydride	• VOC	volatile organic compounds
• CTO	crude tall oil	• pc	percent	• yr	year
• DACP	1:1 xylene and 4-hydroxy-4-methyl-2-pentanone	• Pd	polydispersity		
• DCPD	dicyclopentadiene	• PE	polyethylene polymers		
• ENB	termonomer ethylidene-norbornene	• PHR	per hundred rubber		

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ISSN: 2399-9403

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