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# Argus Global Polyethylene

Polyethylene prices and global coverage

Issue 23-8 | Friday 24 February 2023

## HIGHLIGHTS

### US

Producers nominate additional March increases

### Latin America

Asian imports most competitive

### Europe

Market quiet, sentiment remains cautious

### Russia and CIS

Prices rise for HDPE grades on seasonal demand

### Turkey

Prices rise on reduced supply

### Middle East

More shutdowns take place

### China

Import offers face high competition with local supplies

### Southeast Asia and Vietnam

New supplies exert pressure on prices

### India

Prices fall as inventories pile up

### Pakistan

Sellers raise prices on credit risks

### Dalian Futures Market

LLDPE futures fall towards end of trading week

### Fundamentals to watch

Formosa declares Point Comfort HDPE force majeure

Asian crackers set to raise run rates as margins rise

'Reopen' China boosts butane but not petchems

Fire hits HMEL's naphtha-fed cracker in India's Punjab

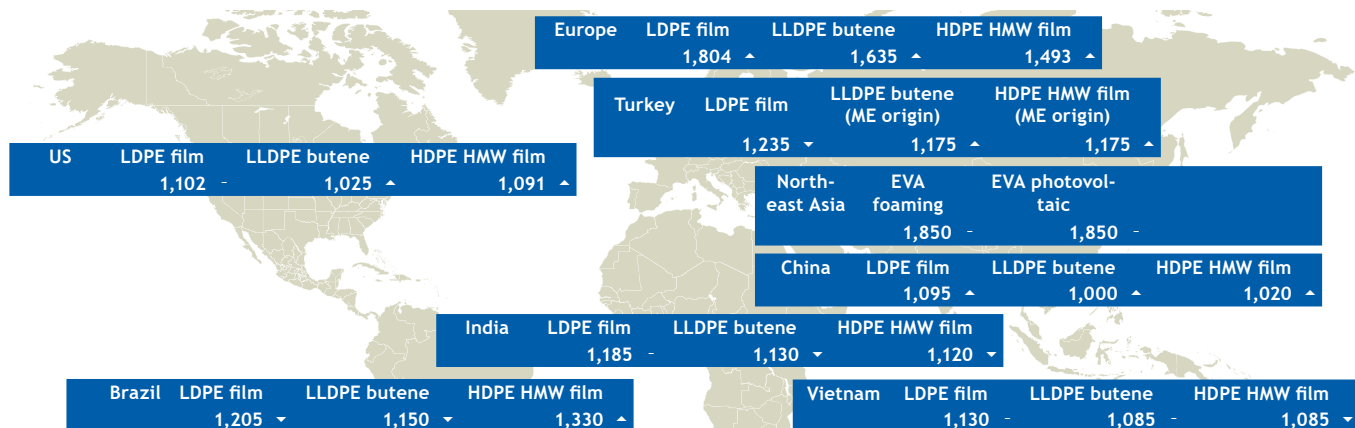
Sri Lanka's virgin plastics buyers avoid SUP ban impact

Ohio train accident may drive safety rule changes

### Global polymer freight rates

Contract prices				\$/t
	Timing	Contract marker		Argus Δ (month-on-month change)
<b>US</b>				
LDPE liner film	Feb	2,183	-	0.0
LLDPE butene	Feb	1,896	-	0.0
LLDPE hexene	Feb	1,940	-	0.0
LLDPE octene	Feb	1,984	-	0.0
HDPE injection	Feb	1,896	-	0.0
HDPE HMW film	Feb	1,896	-	0.0
HDPE BM	Feb	1,918	-	0.0
<b>Western Europe</b>				
LDPE liner film	Feb	1,804	▲	+37.0
LLDPE butene	Feb	1,635	▲	+70.0
HDPE injection	Feb	1,445	▲	+51.0
HDPE HMW film	Feb	1,493	▲	+51.0
HDPE BM	Feb	1,445	▲	+51.0
Spot prices				\$/t
	Basis	Price		±
<b>US exports</b>				
LDPE liner film	fas/Houston bagged	1,080-1,124	-	0.0
LLDPE butene	fas/Houston bagged	992-1,058	▲	+11.0
HDPE injection	fas/Houston bagged	1,014-1,058	▼	-22.0
HDPE HMW film	fas/Houston bagged	1,080-1,102	▲	+44.0
HDPE BM	fas/Houston bagged	1,014-1,058	▲	+44.0
LDPE liner film	dap/Laredo railcar	1,036-1,080	-	0.0
LLDPE butene	dap/Laredo railcar	926-1,014	▼	-22.0
HDPE injection	dap/Laredo railcar	992-1,036	-	0.0
HDPE HMW film	dap/Laredo railcar	1,014-1,080	▼	-11.0
HDPE BM	dap/Laredo railcar	970-1,014	-	0.0
<b>Brazil</b>				
LDPE liner film	cfr	1,190-1,220	▼	-10
LLDPE butene	cfr	1,140-1,160	▼	-20
HDPE injection	cfr	1,160-1,210	▲	+5
HDPE HMW film	cfr	1,320-1,340	▲	+15
HDPE BM	cfr	1,090-1,140	▼	-35
<b>West coast South America</b>				
LDPE liner film	cfr	1,200-1,230	▼	-15
LLDPE butene	cfr	1,150-1,200	-	0
HDPE injection	cfr	1,180-1,220	▼	-10
HDPE HMW film	cfr	1,300-1,340	▲	+10
HDPE BM	cfr	1,140-1,200	▲	+15
<b>Northwest Europe</b>				
LDPE liner film	del	1,372-1,467	▲	+18
LLDPE butene	del	1,319-1,361	▲	+15
HDPE injection	del	1,319-1,372	▲	+13
HDPE HMW film	del	1,319-1,372	▲	+13
HDPE BM	del	1,319-1,372	▲	+13
<b>Russia and CIS</b>				
LDPE 15803	cpt	1,280-1,447	▼	-7
LDPE 15303	cpt	1,369-1,481	▼	-2
LDPE 10803	cpt	1,236-1,347	▼	-1
HDPE injection	cpt	1,280-1,297	▲	+7
HDPE HMW film	cpt	1,280-1,280	▼	-2
HDPE pipe/BM	cpt	1,280-1,425	▲	+27
<b>Turkey</b>				
LDPE liner film Mideast Gulf origin	cfr	1,220-1,250	▼	-10
LLDPE butene Mideast Gulf origin	cfr	1,160-1,190	▲	+10
LLDPE butene US origin	cfr	1,120-1,160	▲	+15
HDPE HMW film Mideast Gulf origin	cfr	1,160-1,190	▲	+10
HDPE BM Mideast Gulf origin	cfr	1,160-1,190	▲	+10
HDPE HMW film US origin	cfr	1,120-1,160	▲	+15

GLOBAL SNAPSHOT



Key prices								\$/t
	US fas Houston	Timing	Western Europe contract marker	Turkey spot cfr (Mideast origin)	China spot cfr (main origin)	Southeast Asia dutiable spot cfr	India spot cfr	
LDPE liner film	1,080-1,124	Feb	1,804	1,220-1,250	1,080-1,110	1,100-1,120	1,170-1,200	
LLDPE butene	992-1,058	Feb	1,635	1,160-1,190	980-1,020	1,080-1,100	1,120-1,140	
HDPE HMW film	1,080-1,102	Feb	1,493	1,160-1,190	1,000-1,040	1,080-1,100	1,110-1,130	

Spot prices				\$/t
	Basis	Price		±
<b>Egypt</b>				
HDPE HMW film Mideast Gulf origin	cif	1,160-1,200	▲	+5
LDPE liner film Mideast Gulf origin	cif	1,300-1,400	-	0
LLDPE butene Mideast Gulf origin	cif	1,160-1,200	▲	+5
<b>GCC</b>				
LDPE liner film	del	1,250-1,300	-	0
LLDPE butene	del	1,040-1,060	-	0
LLDPE hexene	del	1,660-1,710	-	0
LLDPE octene	del	1,770-1,870	-	0
HDPE HMW film	del	1,040-1,100	-	0
<b>Jordan/Lebanon</b>				
LDPE liner film	del	1,250-1,270	-	0
LLDPE butene	del	1,160-1,180	-	0
HDPE HMW film	del	1,140-1,160	-	0
<b>Saudi Arabia (CMP)</b>				
LDPE liner film	fob	1,067-1,097	▲	+5
LLDPE butene	fob	967-1,007	▲	+10
HDPE HMW film	fob	987-1,027	▲	+5
<b>Northeast Asia</b>				
EVA foaming	cfr	1,800-1,900	-	0
EVA photovoltaic	cfr	1,800-1,900	-	0
<b>China</b>				
EVA foaming	fob	1,900-2,000	-	0
LDPE liner film Main origin	cfr	1,080-1,110	▲	+5
LDPE liner film All origin	cfr	1,080-1,110	▲	+10
LDPE liner film domestic	import parity	1,060.00-1,090.11	▲	+5
LLDPE butene Main origin	cfr	980-1,020	▲	+10
LLDPE butene All origin	cfr	980-1,020	▲	+10
LLDPE butene domestic	import parity	981.71-999.77	▲	+6
LLDPE hexene metal-locene	cfr	1,180-1,210	▼	-35
HDPE HMW film Main origin	cfr	1,000-1,040	▲	+5
HDPE HMW film All origin	cfr	1,000-1,040	▲	+5
HDPE HMW film domestic	import parity	969.66-1,029.89	▼	-3
HDPE injection Main origin	cfr	980-1,000	▲	+25
HDPE injection All origin	cfr	975-1,000	▲	+28
HDPE BM Main origin	cfr	970-990	▲	+5
HDPE BM All origin	cfr	965-990	▲	+8

Notes: Main origin - Price of PE of GCC, Asean, South Korean and Indian origins. All origin - Price of PE, regardless of origin.

Spot prices				\$/t
	Basis	Price		±
<b>Southeast Asia dutiable</b>				
LDPE liner film	cfr	1,100-1,120	-	0
LLDPE butene	cfr	1,080-1,100	-	0
LLDPE hexene metal-locene	cfr	1,140-1,160	-	0
HDPE HMW film	cfr	1,080-1,100	-	0
<b>Southeast Asia duty free</b>				
LDPE liner film	cfr	1,200-1,220	-	0
LLDPE butene	cfr	1,080-1,120	▼	-30
LLDPE hexene metal-locene	cfr	1,240-1,290	▲	+15
HDPE HMW film	cfr	1,140-1,160	▼	-5
<b>Vietnam</b>				
LDPE liner film	cfr	1,120-1,140	-	0
LLDPE butene	cfr	1,070-1,100	-	0
HDPE HMW film	cfr	1,070-1,100	▼	-35
<b>Indonesia</b>				
LDPE liner film Mideast Gulf origin	cfr	1,100-1,120	-	0
LLDPE butene Mideast Gulf origin	cfr	1,080-1,100	▼	-10
HDPE HMW film Mideast Gulf origin	cfr	1,070-1,090	▼	-10
<b>India</b>				
LDPE liner film	cfr	1,170-1,200	-	0
LLDPE butene	cfr	1,120-1,140	▼	-20
LLDPE hexene metal-locene	cfr	1,220-1,250	-	0
HDPE HMW film	cfr	1,110-1,130	▼	-35
<b>Pakistan</b>				
LDPE liner film	cfr	1,270-1,300	▲	+20
LLDPE butene	cfr	1,170-1,210	▲	+30
HDPE HMW film	cfr	1,170-1,210	▲	+75
<b>Bangladesh</b>				
LDPE liner film	cfr	1,260-1,280	-	0
LLDPE butene	cfr	1,180-1,200	-	0
HDPE HMW film	cfr	1,200-1,220	-	0
<b>Sri Lanka</b>				
LDPE liner film	cfr	1,280-1,300	-	0
LLDPE butene	cfr	1,200-1,220	-	0
HDPE HMW film	cfr	1,220-1,240	-	0
<b>Nepal</b>				
LDPE liner film	cpt	1,300-1,320	-	0
LLDPE butene	cpt	1,210-1,230	-	0
HDPE HMW film	cpt	1,220-1,240	-	0

## FEEDSTOCKS

### Crude oil

Crude oil prices fell during the earlier trading sessions of this week as the latest minutes from the Federal Reserve suggested the central bank will increase interest rates further to curb inflation. But prices subsequently recovered most of the lost ground, drawing some support from Russia's planned 25pc cut in crude exports from its Baltic and Black Sea ports in March.

### Ethane

Mont Belvieu EPC ethane prices fell by 4.2pc during the week, falling from 24.5¢/USG on 17 February to 23.475¢/USG on 23 February, falling along with natural gas, which has fallen to more than a two year low.

### Naphtha

Average European naphtha prices have increased in February despite softer crude. The lack of Russian supply since the EU banned the trade may be restricting availability, with Europe competing with Asia for Mediterranean cargoes. Month-to-date average naphtha prices are €28/t higher than in January, which will set the tone for olefin contract price negotiations next week.

In Asia-Pacific, the naphtha market has strengthened with reduced supply, and demand from the petrochemical sector edging upwards. Supply is tight with fewer commercial tank offers/takers after the price cap on Russian oil products came into effect on 5 February. Demand was stronger because some crackers in South Korea quietly raised runs amid improving cracker margins, although petchem demand is still relatively weak and recovering more slowly than expected. China has been importing more naphtha to run its crackers because its own refineries are on maintenance and new crackers have come online in the past few months.

### Ethylene

US spot EPC ethylene prices rose moderately from the prior week, trading as high as 22.5¢/lb on 23 February. Ethylene export interest surged over the prior week, with market participants noting increased demand for late March and early April delivery. Buying resumed at Baystar's 1mn t/yr cracker in Port Arthur, Texas, with the unit believed to be on schedule to attempt a restart during the week. Westlake Chemical's 331,000 t/yr ethane cracker in Calvert City, Kentucky, is down in February for a turnaround.

The European ethylene market is quiet and balanced. Producers have settled on an operating rate that works for them and with little new in terms of unplanned events,

Crude				\$/bl
	Effective date	Price		±
Ice Brent	24 Feb	83.16	▲	+0.16
Nymex WTI	23 Feb	75.39	▼	-0.95

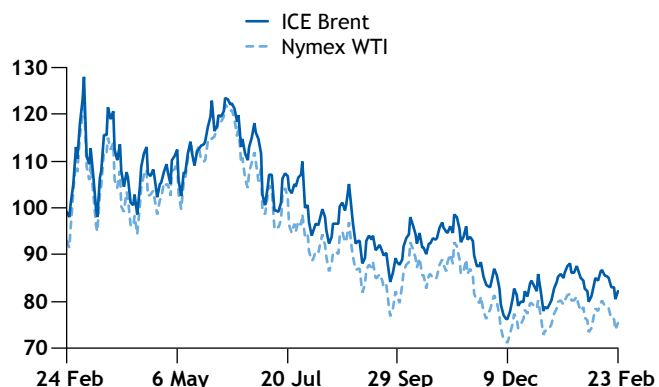
Naphtha				\$/t
	Effective date	Price		±
70 min paraffin USGC waterborne del	23 Feb	672.13	▲	+0.25
65 para NWE cif	24 Feb	724.75	▼	-3.75
Japan c+f	24 Feb	721.25	▲	+8.00

Ethylene				
	Basis	Effective date	Price	±
del USGC ¢/lb	Jan	2 Feb	31.25	▼
del USGC \$/t	Jan	2 Feb	688.94	▼
del Europe €/t	Feb	31 Jan	1,260.00	▲
del Europe \$/t	Feb	31 Jan	1,368.82	▲
cfr NE Asia \$/t	spot	22 Feb	935.00	▲

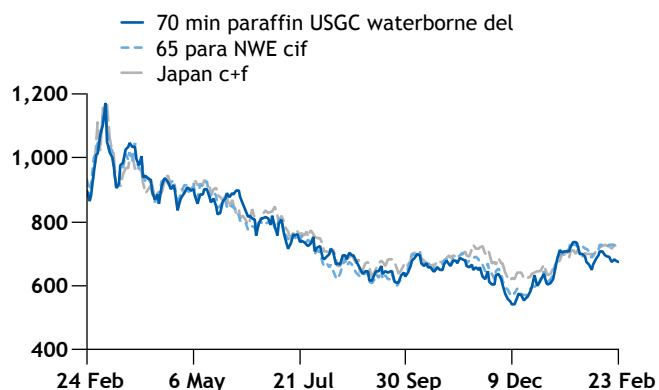
### Crude futures

\$/t



### Naphtha spot prices

\$/t



**Market highlight**

- US ethane prices reach a 22-month low during the week, tracking declines in natural gas.

there has been limited need to deviate in February. There is a certain amount of optimisation between buyers and sellers across their various assets, but the net effect is minimal and mostly dealt with swaps. The March contract price will be negotiated early next week, against the backdrop of average naphtha prices being €28/t higher so far in February. Buyers will continue to push for lower prices, citing poor demand and import pressure from other regions where ethylene prices are lower. But producers feel they have little room in which to manoeuvre, cracker margins are poor or even negative and lower prices will do nothing to garner additional demand, at least in the short term. The European ethylene contract price for February settled on 31 January at €1,260/t, up by €85/t from January.

In Asia-Pacific, northeast Asian ethylene prices rose again during the week because of a supply shortage, extending an uptrend that has lasted for a fourth consecutive week. Market sentiment turned more positive, with derivative markets picking up after a two-week correction on more signs of economic recovery. Buying ideas from most standalone derivative factories in China have reached the low \$900s/t cfr China.

**Cracker margins**

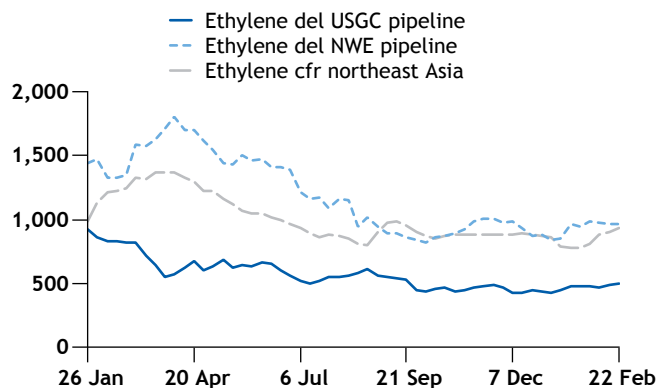
In the US, ethane prices reached a 22-month low, declining alongside natural gas, and causing ethylene cracking margins to widen. Ethane margins reached 11.86¢/lb on 21 February, according to Argus data. The cracking margin for propane also remains profitable, with a value of 4.32¢/lb. Other feedstocks remain negative.

In Europe, modelled cracker margins remain close to breakeven despite a reduction in energy and natural gas prices. Natural gas prices - TTF day-ahead - fell below €50/MWh in recent trading, the lowest they have been since October last year and closer to the long-term pre-June 2021 average. The lower gas price is a benefit to producers, but not enough to offset the low operating rates and poor product margins.

In Asia-Pacific, cracker production margins continued to rebound for the fourth consecutive session alongside higher values in ethylene this week. Naphtha cracker margins inched up to negative \$144/t, up by \$25/t. The propane cracker cash margin settled at negative \$188/t, up by \$75/t from the last session. The ethane cracker cash margin rose

**Ethylene spot prices**

\$/t



to \$381/t, up by \$38/t on a strong rebound in ethylene prices. The significant improvement in cracker margins has some producers mulling an increase in operating rates.

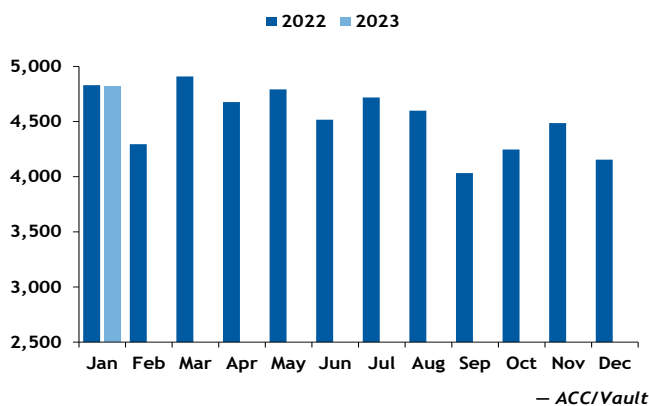
**PRICING ANALYSIS**

**US**

February polyethylene (PE) contract discussions are ongoing, with at least one producer pushing off February increases into March, and other producers doubling down on February increases by nominating additional increases in March. Chevron Phillips Chemical announced during the week it was pushing its February increase to March but would implement a 6¢/lb increase for March. LyondellBasell announced this week it was revising its previously announced 4¢/lb increase for February to 3¢/lb and announced March increases of 3¢/lb for low density polyethylene (LDPE) and linear low density polyethylene (LLDPE) and 5¢/lb for high density polyethylene

**US, Canada PE production**

mn lb



(HDPE). ExxonMobil confirmed it was standing firm on its 3¢/lb increase announced for February and adding another 3¢/lb for March for all grades of PE. Nova Chemicals announced it was revising its previously announced February increase down from 5¢/lb to 3¢/lb, and announced it would implement an additional 3¢/lb increase for March. Buyers are protesting any increase, arguing that demand is not strong enough to support a further increase, particularly with plants still running at lower rates.

PE operations in February remain constrained with ongoing force majeure tightening supplies. Formosa during the week declared force majeure on HDPE high molecular weight bimodal film and pressure pipe products following unexpected mechanical issues at its Point Comfort, Texas, plant. Ineos Olefins & Polymers is continuing to operate under a “force majeure event” following a hit from a January tornado. Sources indicated that some production is believed to have restarted, but that full operations are not expected until March. Chevron Phillips Chemical also remains on force majeure on PE produced out of its Cedar Bayou, Texas, plant. Sources have said the part that plant operators were waiting on has arrived, but it could take some time for the plant to return to normal operations. Market participants said they had heard of a few other minor issues at units in Texas and Louisiana, as well as talk that some producers are building inventory in advance of some upcoming turn-arounds.

Supplies are tightening for most grades, with high density polyethylene (HDPE) high molecular weight film and blow molding among the tightest grades. Sources said material is obtainable for shipment within a few days if buyers are willing to pay higher prices, but producers are not actively seeking buyers in the spot market.

Total January production reached 4.82bn lb, up by 16pc from December levels, and down by 0.2pc from January 2022, according to preliminary data from the American Chemistry Council’s Plastics Industry Producers’ Statistics Group as compiled by Vault Consulting. Plants operated at around 83pc of total capacity, well up from the 72pc of capacity in December but below normal levels.

Total January sales fell to 4.532bn lb, down by 0.7pc from December, with exports down by 12.7pc and domestic sales up by 10.3pc from the prior month. Sales are up by 5.6pc from January 2022 levels, according to the ACC. With output exceeding sales, producers added around 288mn lb to inventories in January, with the bulk of that (208mn lb) from LLDPE.

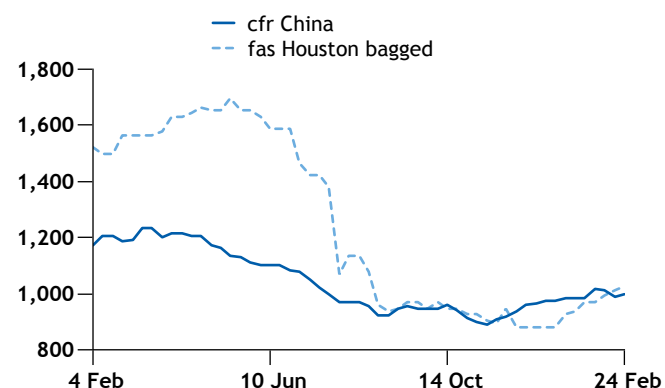
Demand in February is continuing to improve versus January, but even one producer described it as sluggish, pointing to ongoing macroeconomic concerns dragging the industry down. There were reports of some mid-sized con-

US contracts				¢/lb
	Timing	Argus Δ (month-on-month change)	Contract marker	Low / High ±
LDPE liner film	Feb	0.0	99.00	0.0/+5.0
LLDPE butene	Feb	0.0	86.00	0.0/+5.0
LLDPE hexene	Feb	0.0	88.00	0.0/+5.0
LLDPE octene	Feb	0.0	90.00	0.0/+5.0
HDPE injection	Feb	0.0	86.00	0.0/+5.0
HDPE HMW film	Feb	0.0	86.00	0.0/+5.0
HDPE BM	Feb	0.0	87.00	0.0/+5.0

US exports			¢/lb
	Basis	Price	±
LDPE liner film	fas/Houston bagged	49-51	nc
LLDPE butene	fas/Houston bagged	45-48	▲ +0.5
HDPE injection	fas/Houston bagged	46-48	▼ -1.0
HDPE HMW film	fas/Houston bagged	49-50	▲ +2.0
HDPE BM	fas/Houston bagged	46-48	▲ +2.0
LDPE liner film	dap/Laredo railcar	47-49	nc
LLDPE butene	dap/Laredo railcar	42-46	▼ -1.0
HDPE injection	dap/Laredo railcar	45-47	nc
HDPE HMW film	dap/Laredo railcar	46-49	▼ -0.5
HDPE BM	dap/Laredo railcar	44-46	nc

US vs China LLDPE film prices

\$/t



verters cutting back significantly on operations due to lack of downstream demand.

Export prices are moved slightly higher with limited availability for certain grades such as HDPE high molecular weight film and HDPE blow molding. Traders were puzzled by the limited availability for LDPE and LLDPE. Demand remains decent for now for US product, both overseas, and in Latin America.

Mexico

Plant operations have improved in Mexico during the week, following some maintenance issues earlier in the month. Pemex’s swing plant has been operational for over a week and

product is already in transit to its delivery terminals. With the improved operations, Pemex has secured a good supply of linear low density polyethylene (LLDPE) for March.

On the other hand, the company's low density polyethylene (LDPE) production plant will be out of operation for the rest of February and most likely all of March.

The other Mexican PE producer, Braskem Idesa, had a plant out of operation for a week at the beginning of February. According to a source, the company has been consuming normal volumes of ethane, although there have been some problems in the high density polyethylene (HDPE) blow molding production plant.

Meanwhile, Mexican PE demand was heard to have declined slightly this week, after a price increase from one of the local producers. However, some offers from importers with lower prices than a couple of weeks ago were also heard, balancing supply and prices.

## Latin America

Demand for polyethylene (PE) in the markets of Brazil, Colombia, and Ecuador, was impacted this week by the Carnival holiday, but activity was back online by Wednesday.

Supply of US produced PE is somewhat tighter for some grades, as another company announced a force majeure this week. With the move, three US PE producers have part of their operations suspended or reduced.

On the other hand, supply from Shell's new Pennsylvania plant is expected to hit Latin American markets soon. The company was heard to have secured prime material to be offered in the region in the coming weeks, according to a market participant.

Argus heard that US produced linear low density polyethylene (LLDPE) is available for Latin American buyers, but high density polyethylene (HDPE) film is scarce, as has been the case in the last few weeks.

The shortage of US material has been offset by increased Asian offers, especially from China and South Korea, at competitive prices, according to sources.

Middle Eastern offers were not heard until Thursday, a market participant told Argus.

In Brazil, Braskem is proceeding with Triunfo's ethylene/polyethylene (PE) unit ethanol-based expansion project, which is expected to conclude at the end of 1Q23, when the production capacity will increase by 30pc, from 200,000 t/yr to 260,000 t/yr.

In Argentina, restrictions on imports favor domestic producers, increasing their sales by reducing competition with domestic sales, even at high prices.

In January, Argentinean PE imports fell 35pc to 23,100t from January 2022. North America led, climbing from 35pc market share in January 2022 to 66pc in 2023. South Ameri-

ca fell from 40pc in January 2022 to 12pc, and Africa-Middle East lost 1pc to 12pc. Asia-Pacific and Europe sold 5pc each.

In the west coast South America (WCSA), PE imports in 2022 rose year-on-year in Colombia (6pc), and Chile (3pc).

In Peru, the economy registered a growth of 2.68pc in 2022, evidencing a slowdown in economic growth compared to previous years and to other countries in the region in the same period. Peruvian PE imports were 25,200t in January, by 6pc fewer than in 2022.

## Europe

The European polyethylene (PE) market was relatively quiet this week, with fundamentals remaining weak albeit relatively balanced. Sentiment remains cautious with low demand as buyers are restricting purchases to a need-to basis and the focus is on keeping inventories low. But this has been partly offset by reduced production rates at PE plants, as well as market participants reporting reduced imports into Europe. This has kept the pricing picture fragmented within the PE grades and between sellers, with the underlying stock positions playing some role in the extent of increases in PE contract prices secured by sellers in February.

Activity was also dampened this week as market participants eyed the outcome of negotiations of feedstock ethylene's March contract price, which will commence next week. Most market participants expect to see some increase in ethylene's March contract price against the backdrop of an average €28/t increase in naphtha prices in February. And this could also have a knock-on effect on PE contract prices in March, but it remains premature to say to what extent PE producers might succeed in recovering these potentially higher costs from buyers. The evolution of the demand situation will play a key role in determining the outcomes, but the demand outlook can be described as foggy at best. Some sellers are optimistic that they will see improved demand in

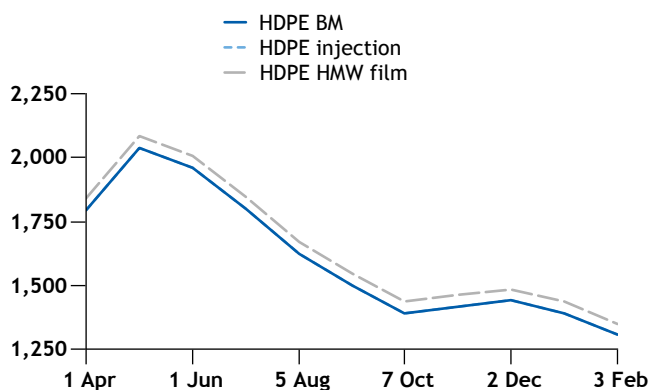
Western Europe contracts					€/t
	Timing	Argus Δ (month-on-month change)	Contract marker	Low / High ±	
LDPE liner film	Feb	+55.0	1,710	+50.0/+85.0	
LLDPE butene	Feb	+85.0	1,550	+60.0/+100.0	
HDPE injection	Feb	+65.0	1,370	+50.0/+85.0	
HDPE HMW film	Feb	+65.0	1,415	+50.0/+85.0	
HDPE BM	Feb	+65.0	1,370	+50.0/+85.0	

Northwest Europe spot					€/t
	Basis	Price		±	
LDPE liner film	del	1,300-1,390		▲	+30
LLDPE butene	del	1,250-1,290		▲	+28
HDPE injection	del	1,250-1,300		▲	+25
HDPE HMW film	del	1,250-1,300		▲	+25
HDPE BM	del	1,250-1,300		▲	+25

## West Europe HDPE contract prices

€/t



March, but others hold more conservative views as economic conditions remain difficult.

With inflation rates remaining high and at above historical averages, consumers continue being faced with a cost-of-living crisis. As such, consumers have cut spending on non-essential purchases and durable goods, which has also affected demand for polymer resins in the value chain in most segments, with fast-moving consumer goods being somewhat of an exception. And this has kept confidence low among sellers and buyers that they will see any meaningful improvement in demand fundamentals in the short term. Producers also remain hesitant to increase run rates speculatively, as this would risk increasing their stocks with no certainty of a proportionate increase in offtake from buyers. Likewise, imports have been reduced as sellers remain hesitant to risk committing to volumes with forward arrival dates in April-May in this uncertain environment. But the relatively low stocks on most grades has also meant that the overall supply front in Europe remains vulnerable.

PE contract price negotiations in February so far have concluded in many cases at increases of €50-85/t, but the outcomes have been grade-dependent. Producers reported a slight improvement in demand in February, when compared with January, as some buyers had to replenish inventories to baseline levels. But some sellers reported that year on year, demand in February fell by 10pc or more. Producers had hoped to pass the full magnitude of the €85/t increase in feedstock ethylene's February contract price on to their freely negotiated PE contracts. But buyers countered with arguments of lower demand and margins in their own downstream product chains and managed to constrain the increases to €50-60/t in many cases. The individual positions of sellers and supply dynamics of specific grades were also influential in determining the outcome of the negotiations and whether producers conceded ground on margins.

For the February Argus deltas, the preliminary assessment for LDPE was made at a €55/t increase, whereas the preliminary assessments for all HDPE grades were made at a €65/t increase. These represent a €30/t and €20/t narrowing of contract margins, respectively.

Many sellers managed to defend their margins on LLDPE grades, with reduced imports from the Middle East and the US also contributing to balancing the fundamentals. Reports were also heard of increases of up to €100/t being asked as some producers were keen to capitalise on slightly favourable fundamentals, but there have also been some LLDPE contract settlements at less than the €85/t increase on feedstock ethylene. The preliminary assessment of the February Argus delta for LLDPE butene was made at a €85/t increase, keeping margins steady.

For all PE grades, the final assessments of the February Argus deltas will be made next week.

The spot market in Europe was also relatively muted this week, with many buyers taking the back seat after having bought the required volumes needed in earlier weeks and as they awaited clarity on the pricing outlook for March and beyond. As such, the high ends of the prices on all PE grades were relatively sticky but some upside moves were seen at the low ends of prices, narrowing the price ranges as a result. Reduced imports, as well as price increases and reduced supplies in other regions, had an influence on wiping out the low ends of the spot price ranges.

The spot prices of all HDPE grades were assessed at €1,250-1,300/t ddp northwest Europe, up by €50/t at the low end and stable at the high end. Market participants indicated that most transactions had remained below €1,300/t. Some sellers had firmer ideas on HDPE blow-moulding prices at €1,400/t, citing tighter supplies, but these were not considered to be representative in the wider market context.

The spot price of LDPE was assessed at €1,300-1,390/t ddp northwest Europe, up by €50/t at the low end and by €10/t at the high end. Market participants indicated prices were now transacting in the €1,300s/t range, with offers at lower levels no longer present. Likewise, sellers had been targeting to push the high end of prices to the €1,400/t threshold, but in most cases, they only succeeded in transacting at slightly below this level.

The spot price of LLDPE butene was assessed at €1,250-1,290/t ddp northwest Europe, up by €50/t at the low end and by €5/t at the high end. Given the relatively tight supplies of the grade, some sellers had already raised their price ideas to €1,300/t. But for now, most transactions were reported at below this threshold, and it remains to be seen whether the high end of the spot LLDPE butene prices increases further in the coming weeks.

Russia and CIS domestic			Roubles/t	
	Basis	Price		±
LDPE 15803	cpt inc VAT	115,000-130,000	▼	-500
LDPE 15303	cpt inc VAT	123,000-133,000	-	0
LDPE 10803	cpt inc VAT	111,000-121,000	-	0
HDPE injection	cpt inc VAT	115,000-116,500	▲	+750
HDPE HMW film	cpt inc VAT	115,000-115,000	-	0
HDPE pipe/BM	cpt inc VAT	115,000-128,000	▲	+2500

## Russia and CIS

Prices for HDPE pipe grades increased with the onset of seasonal demand. HDPE injection grade values rose slightly, with Sibur Holding extending the number of grades produced by Kazanorgsintez that it offers to market.

HDPE pipe and blow-moulding grades were assessed at 95,833-106,667 roubles/t (\$1,280-1,425/t) cpt Moscow, compared with Rbs95,833-102,500/t cpt Moscow last week. Trading companies that offered HDPE pipe grade produced by Gazprom Neftekhim Salavat from storage this week increased prices to Rbs106,667/t cpt Moscow from Rbs98,333-102,500/t cpt Moscow. The producer will raise prices in March from Rbs8,333-10,000/t to Rbs110,000-112,500/t cpt Moscow, a source familiar with the firm's operations said.

HDPE pipe grades HM 0349 PE and HM 0359 PE100 produced by Socar Polymer in Azerbaijan were offered for Rbs102,500/t cpt Moscow and Rbs110,833/t cpt Moscow, respectively, up by Rbs833/t on the week.

Prices for HDPE injection grades were at Rbs95,833-97,083/t (\$1,280-1,297/t) cpt Moscow, compared with Rbs95,833/t cpt Moscow a week ago. Prices for HDPE film grades were assessed unchanged at Rbs95,833/t (\$1,280/t) cpt Moscow for the third week in a row.

LDPE-grade 15803 was offered at Rbs95,833-108,333/t (\$1,280-1,447/t) cpt Moscow, compared with Rbs96,667-108,333/t cpt Moscow a week earlier. Prices for LDPE-grade 15303 and LDPE-grade 10803-020 were assessed unchanged at Rbs102,500-110,833/t (\$1,369-1,481/t) cpt Moscow and at Rbs92,500-100,833/t (\$1,236-1,347/t), respectively.

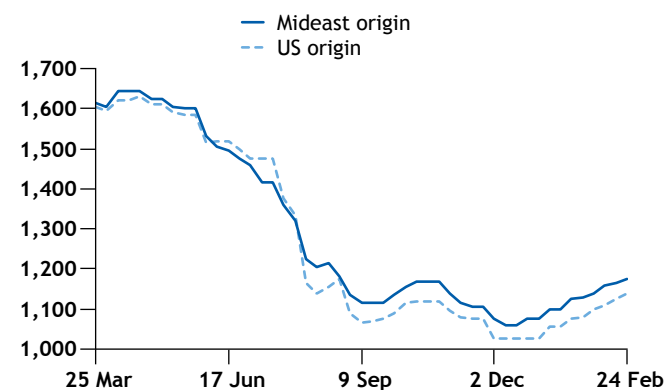
## Turkey

Polyethylene (PE) import prices to Turkey increased slightly this week because of reduced supply in the country, which was balanced to an extent by low demand in the market and a slowing down of the economy owing to two major earthquakes that hit the country on 6 February.

Following the disruption, polymer availability in Turkey has remained low. This is because of the non-operability of the Iskenderun port, where tonnes of polymer products that were previously shipped to the port became fuel for the fire afterwards. The authorities were able to save some of the

## Turkey LLDPE film prices

\$/t



containers, but buyers view purchasing those materials as taking a risk. Besides, there are now fewer offers of Russian origin owing to logistical problems at Novorossiysk port.

The trading firms and converters in Gaziantep are keen to return to pre-earthquake levels of production, but other logistical problems such as document losses, raw material provision and limited access to banks remain. Converters' ability to conclude transactions is also still under pressure from the credit crunch in Turkey, which deteriorated further after the central bank cut its benchmark interest rate to 8.5pc from 9pc this week. This was the second cut in the new year, despite high inflation, although the bank hinted at ending the cycle of cuts at the end of 2022. As a result, demand in Turkey remains low, which curbs high price increases in the market. At present, economic activity for polymers originates mainly from trading firms' tendency to take a position.

Middle East-origin HDPE film was assessed at \$1,160-1,190/t cfr this week, up by \$10/t on both ends of the range from last week's assessment. US-origin HDPE film was assessed at \$1,120-1,160/t cfr, up by \$20/t at the low end and \$10/t at the high end compared with last week's assessment.

Middle East-origin HDPE blow-moulding grade was assessed at \$1,160-1,190/t cfr this week, up by \$10/t on both ends of the range from last week's assessment. There were also offers of Europe origin at €1,170-1,180/t dap, equivalent to around \$1,234-1,245/t dap.

Middle East-origin LDPE was assessed at \$1,220-1,250/t cfr, down by \$10/t at both ends of the range compared with last week's assessment. US offers were heard at \$1,200-1,220/t cfr and offers from Iran emerged at \$1,220-1,250/t cpt.

Middle East-origin LLDPE butene was assessed at \$1,160-1,190/t cfr this week, up by \$10/t on both ends of the range



from last week's assessment. US-origin LLDPE butene was assessed at \$1,120-1,160/t cfr, up by \$20/t at the low end and \$10/t at the high end compared with last week's assessment.

## Egypt

Polyethylene import prices in Egypt mostly rolled over this week on limited trading in the country.

Major suppliers are still holding back from offering material in the Egyptian market, owing to high trading and financial risks. The market remains subdued and procurements are on standby, although banks have partially resumed issuing letters of credit to buyers for concluding transactions, mainly to clear the cargoes that have been stuck at Egyptian ports for several months.

The shortage of dollars in the country continues to undermine trading firms' abilities to import polymers. Most converters in Egypt are operating at reduced run rates of around 25pc because of the lack of supply. To mitigate the currency crisis, the government plans to sell dozens of state assets to foreign investors. Similarly, domestic companies are more focused on exporting to foster their business, and to increase foreign exchange reserves in the country.

Market participants await new offers for March, with expectations of prices increasing next week, notwithstanding the economic stagnation in Egypt. The producers aim to align their offers with the international markets and follow the firmer pricing trend elsewhere.

Middle East-origin HDPE film prices were assessed at \$1,160-1,200/t cif this week, up by \$10/t on the low end and stable on the high end from last week's assessment. Middle East-origin LDPE was assessed stable at \$1,300-1,400/t cif and Middle East-origin LLDPE butene was assessed at \$1,160-1,200/t cif this week, up by \$10/t on the low end and stable on the high end from last week's assessment.

## Middle East

Gulf Co-operation Council (GCC) PE prices were stable this week as trades were limited. Low-density PE (LDPE) film was rolled over at \$1,250-1,300/t del GCC. Linear LDPE (LLDPE) film remained at \$1,040-1,060/t del GCC. LLDPE hexene remained at \$1,660-1,710/t del GCC. LLDPE octene was assessed stable at \$1,770-1,870/t del GCC. High-density PE (HDPE) film was more or less stable at \$1,040-1,100/t del GCC from \$1,020-1,080/t del GCC last week.

Prices in Jordan and Lebanon were similarly stable. LDPE film held stable at \$1,250-1,270/t del Jordan/Lebanon. LLDPE film prices remained at \$1,160-1,180/t del Jordan/Lebanon. HDPE film was rolled over at \$1,140-1,160/t del Jordan/Lebanon.

Buyers expect key producers to announce new shipments for March deliveries next week. Demand for March shipments should be stable-to-firm as converters ramp up operations ahead of the Islamic fasting month of Ramadan in April. Demand will likely remain muted then as converters reduce operating rates because of shortened working hours. Trading firms observed that demand in February was stable. But it did not rise to meet market participants' higher expectations. Sellers were initially expecting higher restocking activity as most converters destocked towards the end of 2022.

Shutdowns in the Middle East continue to keep supplies tight, firming global PE prices. Some producers continue to conduct turnarounds, while others will be having turnarounds in March. Kuwaiti producer Equate finished a turnaround at its 990,000 t/yr LLDPE/HDPE swing plant in Shuaiba. The turnaround began on 20 January and ended on 20 February. Participants expect the producer to raise operating rates in the coming weeks.

Saudi producer Saudi Polymers, owned by Arabian Chevron Phillips Petrochemical and National Petrochemical (Petrochem), has also shut production. The producer encountered technical issues last week and was unable to continue PE production at its plant in Jubail. It operates a 550,000 t/yr HDPE plant and a 550,000 t/yr LLDPE/HDPE swing plant. Market participants expect the producer to resume operations in the next two weeks.

Saudi state-controlled PE producer PetroRabigh will be conducting a turnaround at its 1.6mn t/yr ethane cracker next week, market participants said. The producer will be bringing forward a planned turnaround initially intended for April as it will be the Islamic fasting month of Ramadan then. Production at its 300,000 t/yr HDPE plant and its 600,000 t/yr LLDPE/HDPE plant will be shut down.

Oman's state-controlled PE producer OQ will have a month-long turnaround at its 880,000 t/yr LLDPE/HDPE swing plant in Sohar in March. The producer will be conducting planned maintenance at its 800,000 t/yr ethylene cracker.

HDPE production at UAE-based PE producer Borouge in Abu Dhabi's Ruwais stayed reduced because of planned maintenance. The shutdown began in January and is likely to last for 50 days. A total of 570,000 t/yr of HDPE production will be shut during the turnaround. Saudi PE producer Yansab, an affiliate of state-owned petrochemical producer Sabic, started a 53-day turnaround at its petrochemical complex in Yanbu on 10 January. The complex has a production capacity of 1.3mn t/yr of ethylene, as well as 400,000 t/yr of LLDPE and HDPE.

### China

The Chinese PE market rebounded alongside rising futures and an increase in demand. LLDPE futures on the Dalian Commodity Exchange settled at 8,328 yuan/t on 23 February, compared with Yn8,196/t a week earlier.

Polymer inventories at Chinese state-controlled producers Sinopec and PetroChina fell to 710,000t on 23 February, down by 80,000t from a week earlier. Downstream orders have yet to reach levels seen before Covid-19, but most downstream converters have returned to normal operations. Demand is expected to slowly pick up from late February.

Chinese domestic prices rebounded during the week with rising futures. HDPE film increased by Yn25/t to Yn8,200-8,700/t. LLDPE prices rose by Yn100/t to Yn8,300-8,450/t. Low-density polyethylene (LDPE) film prices also increased by Yn100/t to Yn8,950-9,200/t ex-works east China.

Overseas producers tried to raise offers in light of the supply tightness in overseas markets but were faced with competition from lower-priced Chinese materials. A Saudi producer quoted LLDPE at \$1,050/t, unchanged from last week. LDPE was at \$1,090/t. HDPE film was at \$1,050/t. A Qatari producer offered LLDPE at 1,020/t cif China. LDPE film was at \$1,095/t cif China. A Kuwaiti producer offered HDPE film at 1,010/t cfr China. LLDPE was at \$1,020/t cfr China. US-origin cargoes were offered at \$980/t for LLDPE, \$965/t for HDPE blow and \$985/t for HDPE injection.

The cfr China spot market rose slightly along with the domestic market. LLDPE increased by \$10/t to \$980-1,020/t. HDPE film prices rose by \$5/t to \$1,000-1,040/t cfr China, while spot LDPE increased by \$5/t to \$1,080-1,110/t cfr China. Mainstream offers for duty-free metallocene LLDPE fell to at \$1,230-1,250/t and spot prices dropped to \$1,180-1,210/t cfr China.

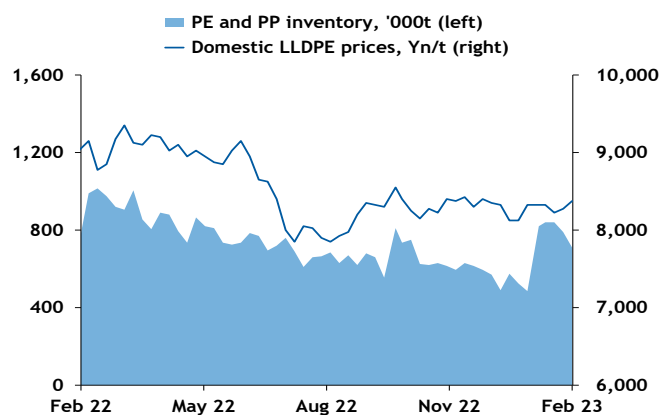
Demand from the agricultural film industry continued to recover from a seasonal lull. Downstream operating rates increased by two percentage points to 45pc this week. Operating rates in east China's Shandong province were at 42pc, also up by two percentage points from last week.

Average operating rates at Chinese PE plants increased by 3 percentage points to 88pc this week. As much as 2.96mn t/yr of production capacity was off line for maintenance but some plants were only down for a few days. Lianyungang Petrochemical is conducting maintenance at its No.1 HDPE unit from 11-26 February and at its No.2 HDPE unit from 1-15 March. CTO maker Zhong'an United shut its 350,000 t/yr LLDPE/HDPE unit on 14 February and the shut-down may last until March.

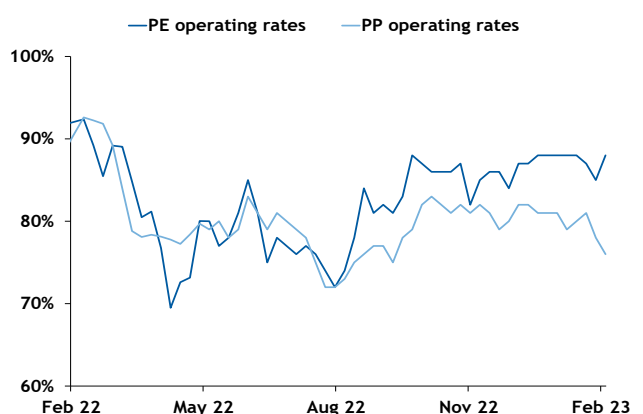
Guangdong Petrochemical's 400,000 t/yr HDPE and 800,000 t/yr LLDPE/HDPE units have started up. Sinopec Hainan Petrochemical is in the process of starting up its

China domestic				Yn/t
	Basis	Price		±
LDPE liner film	ex-works	8,950-9,200	▲	+100
LLDPE butene	ex-works	8,300-8,450	▲	+100
HDPE HMW film	ex-works	8,200-8,700	▲	+25

Sinopec and PetroChina inventory vs LLDPE prices



China PE, PP plant operating rates



#### Market highlight

■ Polymer inventories at Chinese state-controlled producers Sinopec and PetroChina fell to 710,000t on 23 February, down by 80,000t from a week earlier

downstream 300,000 t/yr HDPE and 300,000 t/yr LLDPE/HDPE units this week. The start-up schedule of Shandong Jinhai's 400,000 t/yr HDPE unit has now been delayed to March. Another 1.7mn t/yr of new PE capacity is poised to start up in 2023, which brings total new capacities in 2023 to 3.5mn t/yr.

China's PE export window was open as the price gap

between overseas and domestic cargoes widened. Enquiries from Latin America and India increased. But most transactions are still based on re-exports rather than direct exports.

The imported ethylene-vinyl acetate (EVA) market in China remained stable this week. But domestic prices fell by Yn500/t for foaming grades.

Overseas offers were limited this week. Foaming grade traded at \$1,800-1,900/t cfr northeast Asia. PV grade also remained stable at \$1,800-1,900/t cfr northeast Asia. Maintenance at plants overseas also supported prices. Thailand's TPI is planning to shut down its two production lines in the January-March quarter, which would affect 160,000 t/yr of production capacity. South Korea's LG is planning to shut down its 140,000 t/yr unit in mid-February for seven days, while Hanwha Total has a turnaround planned for May.

The Chinese domestic market dropped as major producers cut ex-works offers. Domestic foaming grades were trading at Yn16,000-16,500/t while PV grades were trading at Yn16,000-17,000/t. Operating rates remained unchanged from last week at 86pc as Sinopec Yanshan switched its 200,000 t/yr LDPE/EVA unit to LDPE production. Sinochem Quanzhou's 100,000t/yr EVA unit was shut down from 14-23 February. The rest of producers kept run rates steady.

Chinese export window for EVA was still closed. A few re-exported EVA was being offered at \$1,900-2,000/t.

### Southeast Asia and Vietnam

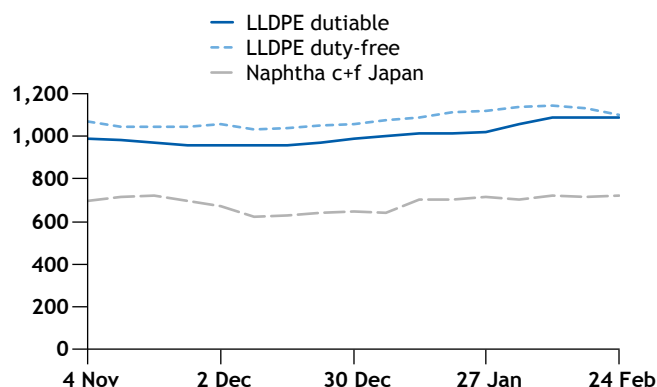
Prices for PE grades in southeast Asia either fell slightly or held stable. The majority of Middle Eastern producers raised PE offers for March shipment as several maintenance shutdowns tightened supply in the Middle East. But a few regional producers lowered their LLDPE and HDPE film offers in response to weaker market sentiment and downstream demand.

Malaysia's PRefChem's 350,000 t/yr LLDPE unit likely stabilized its operations in recent weeks, with market participants expecting more spot LLDPE film supplies in the coming weeks, which have dragged down sentiment in the region. Vietnam's Long Son Petrochemical has conducted trial runs at its 500,000 t/yr LLDPE unit in January. The producer is likely to conduct trial runs at its 450,000 t/yr HDPE unit in February or March.

Converters turned cautious, with regional prices of HDPE and LLDPE film at \$70-100/t premiums to PE prices in China. This comes at a time where southeast Asian PE demand has not recovered significantly in this year's first quarter, apart from expected seasonally higher consumption. Market participants expected Chinese PE demand to gradually increase from early this year after the removal of the country's zero-Covid policies since late last year, but demand growth

### SE Asia LLDPE film vs naphtha prices

\$/t



failed to live up to expectations. A wider spread between southeast Asian PE prices and Chinese PE prices could encourage re-export of cargoes to southeast Asia. Regional converters faced a slowdown in downstream sales of finished goods, with consumer purchasing power dropping as inflation and household debts stay high. Retailers were unwilling to increase stocks of finished products, owing to fears of prices easing gradually.

Domestic PE prices in the Philippines, Indonesia and Thailand have mostly remained stable. Local buyers in Thailand and the Philippines have continued to see a wide gap between domestic and imported PE prices, but price uncertainty has made them uneasy about fixing cargoes with long lead times. The monsoon season is likely to start in the second quarter of 2023, exerting pressure on Thailand's PE consumption, should the volume of tourists begin to slow down. Market participants in Indonesia anticipate weaker PE consumption approaching the Eid festival.

Market expectations of oversupply continued to cap gains in PE prices. The southeast Asian PE market has been supported by tighter supply as a result of maintenance shutdowns and persistently-high feedstock costs, which have restricted production among producers since early this year. But weak demand outlook and expectations of supply recovery are exerting pressure on regional PE prices.

Thailand's SCG restarted its upstream 800,000 t/yr Rayong-based cracker in early February after shutting it in September last year. Market participants have expected HDPE supply to recover gradually from the second half of February. Indonesia's Chandra Asri has continued to operate its cracker and downstream PE plants at 70pc because of continuing issues at its cracker facilities. Malaysia's Lotte Titan has continued to operate its 220,000 t/yr and 115,000 t/yr HDPE units at 80pc and 70pc respectively. The producer will shut its 115,000 t/yr HDPE unit for a planned maintenance in March. Philippines' JG Summit shut its sole naphtha

cracker and its 320,000 t/yr PE plant in mid-February. Thailand's PTT has ramped up its LLDPE and HDPE production to normal levels. The producer will be sourcing spot ethylene supplies during the shutdown of its 300,000 t/yr cracker for around two months from February. Thailand's IRPC will shut its 140,000 t/yr HDPE unit from mid-February to late March for a planned maintenance. Singapore's ExxonMobil will reduce its LLDPE film and possibly LLDPE metallocene production from early February to mid-March, alongside a shutdown at its upstream 1mn t/yr cracker.

Dutiable LDPE film prices were stable at \$1,100-1,120/t cfr southeast Asia given a lack of spot discussions. Qatari-origin LDPE film offers were at \$1,130-1,140/t cfr southeast Asia. Dutiable LLDPE and HDPE film prices were stable at \$1,080-1,100/t cfr southeast Asia. Kuwaiti- and Saudi-origin LLDPE and HDPE film offers were at \$1,120/t cfr southeast Asia to consumers. Re-exported LLDPE film offers from China were at \$1,090-1,100/t cfr southeast Asia. Dutiable LLDPE metallocene prices were rolled over at \$1,140-1,160/t cfr southeast Asia from last week, with limited new offers.

Duty-free LDPE film offers were stable at \$1,200-1,220/t cfr southeast Asia. Malaysia- and Thailand-origin LDPE film offers were at \$1,220/t cfr southeast Asia. LLDPE film prices fell sharply to \$1,080-1,120/t cfr southeast Asia. Malaysia-origin LLDPE film offers were at \$1,080-1,100/t cfr southeast Asia, with deals done. Thailand-origin LLDPE film offers were at \$1,160/t cfr southeast Asia, but attracted limited buying interest. HDPE film prices fell to \$1,140-1,160/t cfr southeast Asia. Thailand- and Malaysia-origin HDPE film offers were at \$1,160-1,200/t cfr southeast Asia. South Korea-origin HDPE film offers were available at \$1,160/t cfr Thailand on a duty-free basis. Duty-free LLDPE metallocene film prices rose to \$1,240-1,290/t cfr southeast Asia. Singapore-origin LLDPE metallocene offers were at \$1,240-1,290/t cfr southeast Asia.

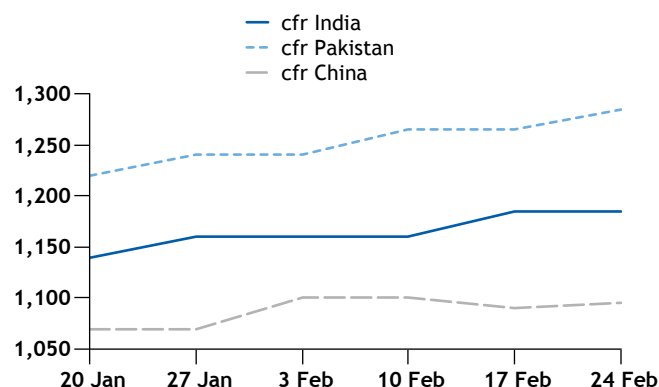
Market sentiment stayed weak in Vietnam. LDPE film prices were rolled over at \$1,120-1,140/t cfr Vietnam. Qatari-origin LDPE film offers were at \$1,140/t cfr Vietnam. US- and Saudi-origin LDPE film supplies traded at \$1,130-1,140/t cfr Vietnam to consumers last week. LLDPE film prices were stable at \$1,070-1,100/t cfr Vietnam. Malaysia- and Saudi-origin LLDPE film offers were at \$1,080-1,120/t cfr Vietnam, with deals possibly done. HDPE film prices fell to \$1,070-1,100/t cfr Vietnam. Saudi-origin HDPE film offers were at \$1,080/t cfr Vietnam, with deals likely done. Domestic LLDPE and HDPE film prices were at \$1,080/t levels on an import parity basis.

## South Asia

Indian PE prices were soft to stable as spot offers were limited. Turnarounds at key producers in the Middle East have made import offers scarce. LDPE film was stable at \$1,170-

## South Asia vs China LDPE prices

\$/t



1,200/t cfr India. Cargoes from Saudi Arabia were offered at \$1,190-1,200/t cfr. LLDPE film was \$20/t lower at \$1,120-1,140/t cfr India. Cargoes from Saudi Arabia were sold at \$1,120-1,130/t cfr. LLDPE hexene remained at \$1,220-1,250/t cfr as spot offers were still limited. HDPE film was \$35/t lower at \$1,110-1,130/t cfr India. Deals for Saudi cargoes were done in this range.

Buyers that needed to restock continued to focus on domestic markets. Most buyers are looking to fulfil contractual requirements before India's fiscal year ends in March. Import interest will likely wane in March because of this. Turnarounds at key producers in the Middle East are seeing import prices firm so far this quarter. Buyers initially responded to this by purchasing more cargoes. But interest has waned at current price levels, mainly because most converters are well-stocked.

State-controlled HMEL in India is gearing up to begin commercial operations at its new PE plant this quarter. The new PE complex will have a 450,000 t/yr HDPE plant and an 800,000 t/yr LLDPE/HDPE swing plant. The producer concluded sales of on-specification and off-specification HDPE in small quantities. But a fire broke out at the plant this week. This could lead to a delay in commercial production.

State-controlled Opal continues to operate its 340,000 t/yr HDPE and 720,000 t/yr LLDPE/HDPE swing plants at reduced run rates because of tighter gas availability. State-controlled Gail continues to operate at 50pc capacity because of gas shortages. Participants expect the producer to resume full operating rates when the new fiscal year begins on 1 April.

Haldia Petrochemicals continues to face technical issues at its naphtha-based cracker in West Bengal state. It operates a 330,000 t/yr LLDPE plant and a 615,000 t/yr LLDPE/HDPE swing plant. The producer is currently operating at 70-80pc, market participants said.

Pakistani PE prices firmed this week as sellers that were

still interested in selling to Pakistan increased prices to mitigate payment default risks stemming from restrictions on obtaining credit. LDPE film was \$20/t higher at \$1,270-1,300/t cfr Pakistan. Cargoes from Qatar were offered at this level. LLDPE film was \$30/t higher at \$1,170-1,210/t cfr Pakistan. Deals for Qatari cargoes were done at \$1,210/t cfr. Chinese cargoes were offered at \$1,170/t cfr. HDPE film was \$75/t higher at \$1,170-1,210/t cfr Pakistan. Spot offers were limited, and HDPE film was assessed at parity to LLDPE film.

Restrictions on obtaining letters of credit (LCs) continue to limit availability of import cargoes. Some trading firms have stayed away from selling to Pakistan on fears that buyers may default on payments. Other trading firms, with bigger risk appetites, continue to offer cargoes to Pakistan buyers at higher prices. Some buyers are financing import purchases through bank accounts in Dubai to circumvent local LC restrictions. These transactions are typically conducted with sellers that have a presence in Dubai and are able to accept these payments.

Bangladeshi PE prices held stable as spot offers were limited. LDPE film held at \$1,260-1,280/t cfr Bangladesh. LLDPE film remained at \$1,180-1,200/t cfr Bangladesh. HDPE film was rolled over at \$1,200-1,220/t cfr Bangladesh. Sri Lanka's PE prices were also stable on limited spot offers. LDPE film was stable at \$1,280-1,300/t cfr Sri Lanka. LLDPE film remained at \$1,200-1,220/t cfr Sri Lanka. HDPE film was stable at \$1,220-1,240/t cfr Sri Lanka.

Nepal's PE prices were rolled over this week. A key Saudi producer began announcing its offers for March at higher prices. But most buyers were not able to accept these prices. Participants are waiting for the producer to revise its offers next week. LDPE film remained at \$1,300-1,320/t cfr Nepal. The Saudi producer offered cargoes at \$1,450/t cif Kolkata. LLDPE film was rolled over at \$1,210-1,230/t cfr Nepal. Cargoes from Saudi Arabia were offered at \$1,210/t cif Kolkata. HDPE film was stable at \$1,220-1,240/t cfr Nepal. Cargoes from Saudi Arabia were offered at \$1,250/t cif Kolkata. Shipping costs remained at \$70/t from India's port of Kolkata to Nepal's inland port of Birgunj.

## FUNDAMENTALS

### Global production news

#### Formosa declares Point Comfort HDPE force majeure

Formosa Plastics today declared force majeure on high density polyethylene (HDPE) high molecular weight bimodal film and pressure pipe products following unexpected mechanical issues at its Point Comfort, Texas, plant, according to a letter to customers.

The letter did not address what the mechanical issues were or what caused them. It also did not address how long the unit is expected to be down or outline customer allocation levels.

"We are currently evaluating the impact of this event on our production capability and will provide additional information once we have assessed our ability to supply," the letter said.

The force majeure is the third one in effect in the US polyethylene market. Ineos Olefins & Polymers continues to operate under a "force majeure event" after its La Porte, Texas, Battleground Manufacturing Complex was hit by a tornado on 24 January. Market participants have said those PE units are not expected to return to normal operations until March.

Chevron Phillips Chemical declared force majeure on PE production out of one of its units in Cedar Bayou, Texas, on 6 January following equipment damage at the unit. Market participants have said that unit is also expected to return to more normal operations in March.

Following the outages, PE supply in the US is somewhat tight, with little spot availability. However, buyers have said they are still largely able to get whatever material they need with a few days of notice.

One distributor said the Formosa force majeure is unlikely to have any significant impact on producers' ability to push through proposed February price hikes of between 3-5¢/lb, adding that even with some tightness, demand is not strong enough to support a further price hike.

Formosa Plastics has approximately 1.8mn t/yr of polyethylene capacity at its Point Comfort plant. It was not immediately clear how much of that capacity is HDPE high molecular weight bimodal film grade.

#### Celanese boosts EVA capacity at Edmonton plant

Petrochemical producer Celanese has expanded its ethylene vinyl acetate (EVA) polymer production capacity in Edmonton, Alberta, to help meet rising demand from renewable energy markets.

The Dallas, Texas-based company re-purposed equipment and infrastructure at the plant to boost the plant's EVA capacity by 35pc starting in the first quarter, Celanese said in a statement. The company declined to provide the plant's original or expanded EVA capacity.

The Edmonton plant's low-density polyethylene (LDPE) capacity was 168,000 metric tonnes/year, according to Argus data.

EVA polymers are used in renewable energy projects such as solar and wind power, with EVA demand in solar applications expected to grow at a double-digit compounded annual rate through 2028, the company said.

Plant maintenance, outages and disruptions							
Status	Plant	Location	Grade	Capacity '000t/yr	Duration	Remarks	Source
	Ineos Olefins & Polymers	US	HDPE	1,112	Dec 2022	Force majeure announced at Texas PE units	Industry
	Chevron Phillips Chemical	US	HDPE	Uncertain	Jan	Force majeure announced at Cedar Bayou units	Industry
NEW	Formosa Plastics	US	HDPE	Uncertain	Feb	Force majeure on HDPE HMW bimodal plant	Industry
	Orlen Unipetrol PE No.3	Europe	HDPE	270	Apr - May for one month	Planned maintenance	Industry
	Gazprom Neftekhim Salavat	Russia	LDPE	46	1 Aug - 10 Sep	Planned maintenance	Producer
	Ufaorgsintez	Russia	LDPE	90	30 Aug for a month	Planned maintenance	Producer
	Kazanorgsintez	Russia	HDPE	510	20 Sep - 10 Oct	Planned maintenance	Producer
	Stavrolen	Russia	HDPE	300	1 Oct for two weeks	Planned maintenance	Producer
	Yansab	Saudi Arabia	LLDPE/HDPE	400	10 Jan for 53 days	Planned maintenance	Producer
	Yansab	Saudi Arabia	HDPE	400	10 Jan for 53 days	Planned maintenance	Producer
	Borouge	UAE	HDPE	570	Jan for 50 days	Planned maintenance	Industry
	SHARQ	Saudi Arabia	LLDPE/HDPE	400	Jan - Feb	Unplanned shutdown at one line	Industry
	Qatofin	Qatar	LLDPE/HDPE	600	Jan	Unplanned shutdown	Industry
	Sadara Chemical Company	Saudi Arabia	LDPE	350	1 Feb for 45 days	Planned maintenance	Industry
	Sadara Chemical Company	Saudi Arabia	LLDPE/HDPE	750	1 Feb for 45 days	Planned maintenance	Industry
NEW	S-Chem's Saudi Polymers	Saudi Arabia	HDPE	550	Mid-Feb for two weeks	Unplanned shutdown	Industry
NEW	S-Chem's Saudi Polymers	Saudi Arabia	LLDPE/HDPE	550	Mid-Feb for two weeks	Unplanned shutdown	Industry
NEW	Petro Rabigh	Saudi Arabia	HDPE	300	Mar for three weeks	Planned shutdown	Industry
NEW	Petro Rabigh	Saudi Arabia	LLDPE/HDPE	600	Mar for three weeks	Planned shutdown	Industry
	OQ	Oman	LLDPE/HDPE	880	Mar for one month	Planned maintenance	Industry
	OPAL	India	HDPE	340	End Aug 2022	Plant is operating at 85pc	Industry
	OPAL	India	LLDPE/HDPE	720	End Aug 2022	Plant is operating at 85pc	Industry
	Gail	India	HDPE	120	1 Oct 2022	Plant is operating at reduced rates	Industry
	Gail	India	HDPE	120	1 Oct 2022	Plant is operating at reduced rates	Industry
	Gail	India	HDPE	250	1 Oct 2022	Plant is operating at reduced rates	Industry
	Gail	India	LLDPE/HDPE	210	1 Oct 2022	Plant is operating at reduced rates	Industry
	Gail	India	LLDPE/HDPE	400	1 Oct 2022	Plant is operating at reduced rates	Industry
	Haldia Petrochemicals	India	HDPE	330	Jan	Plant is operating at reduced rates because of cracker issues	Industry
	Haldia Petrochemicals	India	LLDPE/HDPE	615	Jan	Plant is operating at reduced rates because of cracker issues	Industry
	Sinopec Zhenhai Phase 2 No.2	China	HDPE	300	5 Mar 2022 - Feb 2023	Maintenance extended	Producer
	Haiguo Longyou	China	LLDPE/HDPE	400	Early Apr 2022 - Feb 2023	Maintenance	Producer
	Wanhua Petrochemical	China	HDPE	350	12 Nov 2022 - Feb 2023	Maintenance	Producer
	Lianyungang Petrochemical (Zhejiang Satellite) No.1	China	HDPE	400	11 - 26 Feb	Maintenance	Producer
	Lianyungang Petrochemical (Zhejiang Satellite) No.2	China	HDPE	400	1 - 15 Mar	Maintenance	Producer
	PetroChina Daqing	China	HDPE	80	13 - 18 Feb	Maintenance	Producer
UPDATE	Zhongan United	China	LLDPE/HDPE	350	14 Feb - Mar	Unplanned outage	Producer
NEW	PetroChina Dushanzi	China	LLDPE/HDPE	300	20 Feb for a few days	Maintenance	Producer
NEW	Sinopec SK Wuhan Phase 2	China	HDPE	300	20 Feb for a few days	Maintenance	Producer
NEW	Sinopec Yanshan	China	HDPE	80	22 Feb for 3 days	Maintenance	Producer
UPDATE	Lotte Chemical Titan	Malaysia	HDPE	220	Jan until present	Plant is operating at 80pc	Producer
UPDATE	Lotte Chemical Titan	Malaysia	LDPE	230	Jan until present	Plant is operating at 90pc	Producer
NEW	Lotte Chemical Titan	Malaysia	HDPE	115	Mar for two weeks	Maintenance	Producer
UPDATE	Chandra Asri	Indonesia	LLDPE/HDPE	400	Jan until present	Plant is operating at 70pc	Industry
UPDATE	Chandra Asri	Indonesia	HDPE	336	Jan until present	Plant is operating at 70pc	Industry
	ExxonMobil	Singapore	LLDPE	1250	Early Feb - mid-Mar	Maintenance	Industry
	IRPC	Thailand	HDPE	140	Mid-Feb - end Mar	Maintenance	Industry
NEW	JG Summit Petrochemical	Philippines	LLDPE	160	Mid-Feb - end Mar	Maintenance	Industry
NEW	JG Summit Petrochemical	Philippines	HDPE	160	Mid-Feb - end Mar	Maintenance	Industry

EVA polymers also are used in the automotive industry, consumer goods, energy, medical, construction, and food and beverage packaging.

#### Asian crackers set to raise run rates as margins rise

Asian crackers are slowly raising or planning to raise operating rates as margins rose following steep price hikes in olefin markets in the past month as a result of supply constraints.

Asian ethylene prices surged to \$920-950/t cfr northeast Asia this week, up by \$150-170/t or 21pc from a month ago. Propylene prices rose to \$970-1,000/t cfr northeast Asia, up by \$70-90/t or 9pc on the month. Butadiene rose sharply to \$1,280-1,330/t cfr northeast Asia on 17 February, up by \$305-335/t or 32pc from late January.

In comparison, the weekly average value of feedstock naphtha only rose by 3pc in the month to \$721/t cfr Japan.

New start-ups							
Status	Plant	Location	Grade	Capacity '000t/yr	Start-up	Remarks	Source
	Shell Polymers	US	LLDPE	500	3Q 2022		Industry
	Shell Polymers	US	HDPE	550	3Q 2022		Industry
	Shell Polymers	US	HDPE	550	3Q 2022		Industry
	Bayport Polymers	US	HDPE	625	1Q 2023		Industry
	Nova Chemicals	Canada	LLDPE	500	1H 2023		Industry
	Guangdong Petrochemical	China	LLDPE/HDPE	800	Feb 2023	Delayed from late 2022	Producer
	Guangdong Petrochemical	China	HDPE	400	Feb 2023	Delayed from late 2022	Producer
	Sinopec Hainan	China	LLDPE/HDPE	300	Feb 2023	Plant started	Producer
	Sinopec Hainan	China	HDPE	300	Feb 2023	Plant started	Producer
	Shandong Jinhai Petrochemical	China	HDPE	400	Mar 2023	Delayed from late 2022	Producer
	Qinghai Damei	China	LLDPE/HDPE	300	2023	Delayed from 2021	Producer
	China Coal Yulin	China	HDPE	350	2023		Producer
	Ningxia Baofeng Phase 3	China	HDPE	400	Jun 2023		Producer
	Ningxia Baofeng Phase 3	China	LDPE	250	Jun 2023		Producer
	HPCL-Mittal Energy Limited	India	LLDPE/HDPE	800	1Q 2023	Start-up delayed from 4Q 2022	Producer
	HPCL-Mittal Energy Limited	India	HDPE	450	1Q 2023	Start-up delayed from 4Q 2022	Producer
	JG Summit Petrochemical	Philippines	HDPE	250	Nov 2022	Started trial runs in mid-November	Industry
	PRefChem	Malaysia	LLDPE/HDPE	350	Aug 2022	Plant is operating at 80-90pc	Industry
	PRefChem	Malaysia	HDPE	400	Sep 2022	Plant was shut after a fire at the Pengerang Integrated Complex, expected to restart by late February 2023	Industry
	Long Son Petrochemical	Vietnam	LLDPE	500	Mid-2023	Plant has achieved on-specification LLDPE film output during trial runs in January	Producer
	Long Son Petrochemical	Vietnam	HDPE	450	Mid-2023	Trial runs expected in March	Producer

Feedstock propane prices experienced steep volatilities in the past month with its weekly average values peaking at \$835/t cfr Japan at the end of January, before falling to \$738/t on 17 February.

Cash margins of naphtha crackers rose sharply to negative \$144/t this week, up by \$213/t from a month earlier, based on Argus' cracker economics model. The propane cracker cash margin settled at negative \$188/t, up by \$265/t compared with late January.

Naphtha cracker margins rose to -\$60/t this week from -\$270/t in late January, if based on variable cost. Propane cracker margins rose to -\$117/t from -\$379/t on 25 January.

Some South Korean cracker operators took the lead to raise cracker run rates. Hanwha Total since early February has ramped up cracker run rates to 100pc from the previous 75pc to stock up on olefin inventories ahead of its cracker turnaround in late April.

More producers are considering raising run rates. Lotte plans to raise its Daesan cracker rate to 90pc in early March from the current 82pc. But it will maintain its Yeosu cracker rate at 84pc.

LG Chem has decided not to advance its turnaround plan and will stick to the original schedule of April-June at its 800,000 t/yr Yeosu No.2 cracker. The company had said in mid-February that it would bring forward the overhaul to March because of negative margins.

Another South Korean producer KPIC also plans to raise cracker operating rate, but that may not happen until April.

Taiwan's Formosa is considering restarting its No.2 cracker but has yet to decide when. The 1.035mn t cracker

has been shut since 11 July 2022 to align with heavy production cuts in the downstream ethylene glycol sector.

In China, Sinopec is considering raising overall cracker run rates in March to cater to higher consumption in downstream sectors because of a recovery in demand. The current average operating rate of Sinopec subsidiary crackers is estimated at about 86pc.

In southeast Asia, a Singapore-based cracker operator has since early February raised its cracker operating rate to 80-85pc from the previous 75pc.

"Crackers must slowly and prudently raise operations or it will once again depress olefin prices and margins, as China continues to add massive new capacities" a major cracker operator in China said.

#### 'Reopen' China boosts butane but not petchems

China's reopening economy after it dropped its zero Covid policy and post the lunar new year holiday has lifted butane demand for gasoline blending. But other energy and petrochemical demand for LPG may not recover until the second quarter.

Butane demand from the gasoline blending sector has been firm this month as people resumed travel and MTBE exports increase, an east Chinese MTBE producer says. Wholesale margins for normal butane and isobutane were strong in east China's Shandong province, the hub for gasoline blendstocks.

LPG sales in the commercial and industrial sectors have shown no signs of obvious improvement after the holiday as the weather has been getting warmer, a south Chinese

distributor says. Demand for LPG as a fuel in east China has been stable, with people returning from rural areas to cities, reducing use as a cooking fuel in the former but boosting it in the latter, an east Chinese refiner says. But market participants expect industrial sector demand to rise in the second quarter on a recovering property market, which supports use in the ceramics sector.

In the petrochemical sector, propane dehydrogenation (PDH) plants struggled in January and February because of unusually high LPG prices and rising competition from ethylene producers. PDH run rates had dropped to 66pc by 15 February from 74pc on 25 January because of high propane prices, while ethylene cracker rates were stable at 91.5pc, including the new 1.1mn t/yr Shenghong cracker launched in December 2022. This will be joined by state-controlled PetroChina's 1.2mn t/yr Jiayang and state-owned Sinopec's 1mn t/yr Hainan crackers this month. These three plants will yield around 1.6mn t/yr of propylene combined.

Some petrochemical firms are concerned that higher run rates at refineries and associated crackers after the economy's reopening will squeeze PDH's share in the domestic propylene market in 2023. But the IMF forecasts China's GDP to grow by 5.2pc this year, up from 3pc in 2022, which should bolster downstream demand.

#### Fire hits HMEL's naphtha-fed cracker in India's Punjab

A fire hit Indian petrochemical producer Hindustan Petroleum-Mittal Energy's (HMEL) Guru Gobind Singh refinery in India's northwestern state of Punjab early this morning.

The fire started near the quench oil pump at the producer's 1.2mn t/yr naphtha-fed cracker because of an oil leak which generated thick smoke, according to HMEL on 24 February. The fire was localised and brought under control by 10am local time (4:30am GMT), with no casualties reported.

But it remains unclear if the fire has been fully extinguished. There was no impact to other units in the complex, HMEL said.

The producer has been gearing up to start commercial operations at its cracker as well as its downstream 450,000 t/yr high-density polyethylene (HDPE) and 800,000 t/yr linear low-density PE/HDPE plants this quarter. HMEL has been conducting trial runs at this plant since December.

Participants close to the producer are expecting start-up delays of around three months because of the fire.

The producer last year started operations at its new 500,000 t/yr polypropylene (PP) plant in the same complex in Bathinda. But the new plant and its older 400,000 t/yr PP plant have been operating at reduced rates because of feedstock shortages.

Argus has reached out to HMEL for further comments about the impact of the fire on its petrochemical operations. But the producer was unable to give further comments as investigations are still ongoing.

#### India's Gail plans US ethane imports for petchem plant

Indian state-controlled gas distributor Gail plans to import ethane from the US as part of feedstock diversification for its petrochemical plant.

Gail has sought quotes to hire very-large ethane carriers (VLECs) with a capacity of 80,000-99,000m<sup>3</sup> for 20 years starting from mid-2026, it said in an expression of interest (EOI) document dated 25 January. The term may be extended for a further five years.

The ships are expected to take ethane from US ports such as Marcus Hook, Nederland, Morgan's Point and Beaumont and deliver to India's Dahej, Hazira and Dabhol ports and transport it further through Gail's pipeline systems to demand centres.

Gail has a petrochemical plant in Pata, Uttar Pradesh that has polymers production capacity of 810,000 t/yr. It had to cut or stop polyethylene production at the plant several times last year because of gas shortages and weaker margins resulting from higher gas prices. It is aiming to build a propane dehydrogenation plant in Usar, Maharashtra by next year, which will have a nameplate capacity of 500,000 t/yr of polypropylene.

Gail is also exploring co-transportation of ethane and LNG through the same VLECs. "[The] bidder may indicate whether the vessel offered for time charter is compatible for part loading of ethane and LNG," it said in the EOI document.

Rising gas demand in the country has prompted Gail to enhance its LNG portfolio, with it seeking to acquire a 26pc stake in a US LNG export terminal, along with term supplies of 1mn t/yr from 2026. The firm is also talks with Abu Dhabi's state-owned Adnoc and other prospective suppliers to secure term LNG agreements.

India's ethane imports have predominantly been from the US. Imports were 1.62mn t last year, all for private-sector refiner Reliance Industries (RIL), up by 6pc on the previous year, Vortexa data show. RIL uses US ethane for its crackers in Dahej, Hazira and Nagothane. RIL continues to optimise naphtha and ethane as feedstocks for its polymer production, it said in its October-December 2022 quarterly earnings.

#### Naphtha rises above crude in northwest Europe

Naphtha is trading at a premium to crude in northwest Europe for the first time since April last year, boosted by



the EU's ban on Russian imports and strong demand from gasoline blenders in the region.

Delivered naphtha cargoes in northwest Europe were assessed at a premium of 30€/bl to North Sea Dated on 22 February, the first time prices have risen above the crude benchmark since 11 April 2022. The region's naphtha forward curve has also moved into heavy backwardation – where prompt prices are higher than later delivery dates – with the front-month swap averaging a \$15.28/t premium over the second month in February to date. This marks the steepest backwardation since late March 2022.

This kind of market structure typically indicates tight prompt supply, which is certainly the case in northwest Europe now that Russian naphtha is off limits. Russia sent over 7mn t of naphtha to northwest Europe in 2022, according to Vortexa.

Increased imports from the Mediterranean region could help to at least partially plug the supply gap. Mediterranean naphtha has historically found buyers among petrochemical producers in Asia-Pacific, with an average of 6.8mn t/yr shipped east in 2020-22. But current regional price differentials mean that more Mediterranean supply has been moving to northwest Europe and less to Asia-Pacific.

Besides tight supply, strong demand from gasoline blenders is also lending support to naphtha margins in northwest Europe. Gasoline blending margins have been counter-seasonally high this month, with Eurobob oxy gasoline's premium to naphtha averaging almost \$90/t in February to date, up from around \$25/t in February last year. It is the highest February average in the past five years, according to Argus records.

Demand for naphtha from Europe's petrochemical sector remains lacklustre though, partly due to the economic slowdown, but also because naphtha has traded at an average premium of \$65/t to rival petrochemical feedstock propane in February so far.

## Packaging and downstream applications

### Sri Lanka's virgin plastics buyers avoid SUP ban impact

Sri Lanka's ban on eight single-use plastic (SUP) products from 1 June 2023 is expected by market participants to have a minimal impact on its virgin polymer imports.

A ban on the import, production, sale and use of polythene bags, plastic hopper holders, plastic dishes, plastic cups and plastic was proposed by the government in August 2021. It was endorsed on 14 February this year because of continued reports of elephants and deer deaths caused by ingesting plastic waste.

But participants expect most of Sri Lanka's plastics

converters will continue importing virgin polymers as the industry is heavily focused on garments and textiles, which are not categorized as single-use plastics.

Approximately 40pc of Sri Lanka's total plastic exports are to the US, according to a 2021 report by Sri Lanka's environment ministry. The new legislation is unlikely to affect revenue streams as exported plastic products are typically sacks, bags and textiles. The report has domestic plastic processing capacity, the aggregate total domestic plastic production capacity, at 140,000 t/yr.

The bulk of Sri Lanka's plastic waste is generated in Western province where the capital Colombo is located. It is targeting a recycling rate of 7pc by 2023.

Converters have also been facing issues in securing stable supplies of diesel to run power generators and maintain consistent operating rates at factories. The Sri Lankan government in August 2022 increased electricity tariffs by 75pc, with a further undisclosed increment approved in January.

The weakening Sri Lankan rupee and exacerbating trade deficit has resulted in tighter restrictions in obtaining letters of credit (LCs). Most buyers have had to make cash payments through advanced telegraphic transfers as it has been difficult to obtain LCs.

Trading firms that typically sell virgin resin to Sri Lanka have noted increased interest for recycled resin from domestic buyers in last year's fourth quarter. Interested buyers are typically rigid packaging producers that produce final goods for exports to Europe. Customers have been seeking recycled resin to form virgin-recycled blends to comply with EU legislation.

Implementation of the SUP ban in June later this year could result in increased recycled polymer imports, especially from India. Recycling market participants at the Plastindia 2023 trade fair in New Delhi spoke of a positive environment for investment in the Indian industry, driven by new regulations governing the use of recyclates in packaging.

Indian private-sector conglomerate Reliance Industries has also begun producing recycled polyethylene terephthalate. Capacities are currently at around 5,000-6,000 t/month, with plans to expand recycled plastics production in the next 2-3 years. RIL currently does not export recycled plastics but capacity additions could make it a key regional exporter.

Sri Lanka's SUP ban also has the potential for increased recycled plastics imports with increasing pressure for consumers and producers to be more environmentally conscious.

### US Democrats ask EPA to slow plastics output

A group of Democratic federal lawmakers are calling for the

US Environmental Protection Agency to slow plastics production and fight pollution by increasing industry regulation and rejecting chemical recycling.

The 9 February letter signed by 48 legislators claims that chemical recycling technologies, including pyrolysis and gasification, harm the environment by putting resources into plastics production when the nation should be slowing output.

"While recycling is important, recycling alone will not get us out of this crisis, especially with misguided solutions like chemical recycling," according to the letter organized by senators Cory Booker, Jeff Merkley and Jared Huffman.

The legislators request that the EPA continue to regulate pyrolysis and gasification as waste incineration, rather than recycling, under Section 129 of the 1970 Clean Air Act. In addition, the lawmakers seek the removal of "harmful" chemical recycling technologies from the National Recycling Strategy.

The letter also requests national targets for single-use plastic reduction, as well as a sweeping federal review of the petrochemical industry's impact on human health.

Merkley hosted a Senate panel in December addressing the issue of plastic waste.

Booker introduced the Protecting Communities from Plastics Act last year, which would have enforced stricter plastics manufacturing industry regulations. The bill also would have temporarily paused permitting for some facilities and focused on creating incentives for more reuse and refill programs. The bill failed to advance out of committee after plastics industry representatives said it would hurt jobs and slow technological advancements.

Last year 35 US legislators signed a similar letter calling for chemical recycling using gasification and pyrolysis to continue to be regulated as waste incineration.

### Food packagers feel sustainability pressure

Food packaging producers are feeling pressure from all sides to demonstrate their green credentials. But they should not use this as an excuse for adopting behaviors that may be detrimental to sustainability as a whole, delegates at the ACI European Food and Beverage Plastic Packaging Summit in Antwerp heard.

The head of Coca-Cola's public policy center and chairman of packaging association European Hans van Bochove identified several layers of pressure driving brands to increase the sustainability of their plastic packaging. Pressure starts with consumers and non-governmental organizations that care about packaging and packaging waste and develops with "demonization" of plastics by the media, he said. Potential investors may also use sustainability criteria to

judge investments, he added, and regulations – such as the EU's Single Use Plastic (SUP) directive and proposed Packaging and Packaging Waste Regulations (PPWR) that set out requirements for recycled content in food packaging – then follow.

Companies need to "be mindful" to navigate through these various pressures and, while there can be a temptation for competing brands to try to outdo each other with increasingly ambitious targets, a more cohesive approach is likely to produce better results, van Bochove said. Solid targets from within the industry can help to lead legislation, he said, and effective legislation reduces the risk of individual countries "going their own way". "It may be great to compete and try to 'one-up' each other, but a collaborative approach would be better," agreed Hannah Drew from Aldi South Group.

A collaborative approach could also help small- and medium-size food and beverage companies that may otherwise struggle with the financial burden of compliance with regulations, delegates heard. Such companies are likely to have fewer resources than large corporations for dealing with sourcing the material necessary to comply with the SUP directive and PPWR without compromising safety. Demand outweighs supply of consumer-packaging-quality recyclates – particularly those that are approved for use in food-contact applications – in Europe, and prices remain significantly higher than for virgin polymers.

## Supply chain and shipping

### Ohio train accident may drive safety rule changes

The public outcry over the 3 February derailment of a Norfolk Southern (NS) freight train in Ohio may spur new safety regulations governing how some hazardous materials are handled.


A NS train hauling five railcars of vinyl chloride monomer (VCM) derailed in East Palestine, Ohio. Rail service was restored within days and NS has already begun cleaning up the area, removing contaminated soil and water.

The incident has attracted worldwide attention. Local residents fearful about toxic leftovers from a controlled burn of VCM are clamoring for a more vigorous response from state and federal regulators. While trains derail in the US almost daily, most are minor accidents that do not involve hazardous materials. But the uproar has moved beyond just shipment of VCM to encompass broader concerns over train derailments.

US transportation secretary Pete Buttigieg called for reviving a proposed rule mandating installation of electronically controlled pneumatic brakes. The Transportation

Global polymer freight rates						\$/t
Origin	Destination	Argus Low	Argus High	±	Source	
<b>Americas</b>						
Houston	Shanghai	32	44	-	Freightos	Derived
Houston	Mersin	96	99	▼	Freightos	Derived
Houston	Genoa	22	35	▼	Freightos	Derived
Houston	Valencia	22	33	▼	Freightos	Derived
Houston	Antwerp	23	37	▼	Freightos	Derived
Houston	Santos	44	65	-	Freightos	Derived
Houston	Buenos Aires	48	71	▼	Freightos	Derived
Houston	Buenaventura	93	106	-	Freightos	Derived
Houston	Callao	93	110	-	Freightos	Derived
Houston	Guayaquil	93	106	-	Freightos	Derived
Houston	Valparaiso	126	127	-	Freightos	Derived
Santos	Rotterdam	130	140	▲	Freightos	Derived
<b>Middle East and North Africa</b>						
Jubail	China	10	15	▲	Argus	
Jubail	Indonesia	30	35	▲	Argus	
Jubail	Karachi	45	50	▲	Argus	
Jubail	Mumbai	25	30	▲	Argus	
Jubail	Turkey	55	65	-	Argus	
Jebel Ali	Shanghai	12	20	-	Freightos	Derived
Jebel Ali	Singapore	8	12	-	Freightos	Derived
Jebel Ali	Melbourne	107	121	-	Freightos	Derived
Jebel Ali	Tauranga	121	121	-	Freightos	Derived
Jebel Ali	Antwerp	39	52	-	Freightos	Derived
Jebel Ali	Buenaventura	176	176	-	Freightos	Derived
Jebel Ali	Callao	173	173	-	Freightos	Derived
Port Said	Mersin	15	20	-	Freightos	Derived
Port Said	La Spezia	15	25	-	Freightos	Derived
Port Said	Antwerp	25	35	-	Freightos	Derived
<b>Southeast Asia</b>						
Singapore	Karachi	40	48	-	Freightos	Derived
Singapore	Mumbai Nhava Sheva	32	48	-	Freightos	Derived
Singapore	Colombo	54	57	▲	Freightos	Derived
Singapore	Melbourne	57	101	▲	Freightos	Derived
Singapore	Tauranga	128	139	-	Freightos	Derived
Vung Tau	Antwerp	90	96	▼	Freightos	Derived
Vung Tau	Genoa	98	109	▼	Freightos	Derived

Global polymer freight rates						\$/t
Origin	Destination	Argus Low	Argus High	±	Source	
<b>Northeast Asia</b>						
Busan	Mersin	113	117	▲	Freightos	Derived
Busan	Koper	118	130	▲	Freightos	Derived
Busan	Genoa	94	105	▼	Freightos	Derived
Busan	Valencia	98	119	▲	Freightos	Derived
Busan	Antwerp	57	82	▼	Freightos	Derived
Busan	Durban	113	113	▼	Freightos	Derived
Busan	Santos	85	85	-	Freightos	Derived
Busan	Buenaventura	65	85	-	Freightos	Derived
Busan	Callao	65	85	-	Freightos	Derived
Busan	Melbourne	40	40	-	Freightos	Derived
Busan	Tauranga	95	95	-	Freightos	Derived
Shanghai	Nagoya	21	21	▼	Freightos	Derived
Shanghai	Laem Chabang	5	13	-	Freightos	Derived
Shanghai	Port Klang	8	24	-	Freightos	Derived
Shanghai	Karachi	32	53	▼	Freightos	Derived
Shanghai	Mumbai Nhava Sheva	24	51	▼	Freightos	Derived
Shanghai	Chennai	24	52	▼	Freightos	Derived
Shanghai	Colombo	44	52	▼	Freightos	Derived
Shanghai	Chittagong	80	100	-	Freightos	Derived
Shanghai	Mersin	113	117	▲	Freightos	Derived
Shanghai	Koper	118	130	▲	Freightos	Derived
Shanghai	Genoa	93	105	-	Freightos	Derived
Shanghai	Valencia	89	109	-	Freightos	Derived
Shanghai	Antwerp	55	67	-	Freightos	Derived
Shanghai	Rotterdam	55	63	▼	Freightos	Derived
Shanghai	Durban	108	125	▼	Freightos	Derived
Shanghai	Santos	86	88	▲	Freightos	Derived
Shanghai	Manzanillo	50	70	▲	Freightos	Derived
Shanghai	Buenaventura	51	66	▼	Freightos	Derived
Shanghai	Callao	66	70	-	Freightos	Derived
Shanghai	San Antonio, Chile	54	75	▲	Freightos	Derived

 Argus freight rates are as of the day of publication. Rates derived from Freightos data are of the previous day. Selected polymer spot freight rates are calculated by Argus methodology, based on underlying data from the online freight marketplace, Freightos. Visit [www.freightos.com](http://www.freightos.com) for complete lists of S/FEU rates in the wider spot container market.

Department also will consider requiring railroads to provide states more notice before transporting hazardous gas tank cars. And the US Environmental Protection Agency issued a binding order requiring NS to take "all necessary actions" related to the clean-up.

But Buttigieg said railroads "should not wait" to act. And he wants Congress to weigh in.

The Senate Environment and Public Works Committee already is planning a hearing to examine the response to the incident. The Senate Committee on Commerce, Science and Transportation ordered the seven largest US railroads to provide information on their hazardous materials safety

practices.

The Association of American Railroads said the facts should "drive the post-accident response."

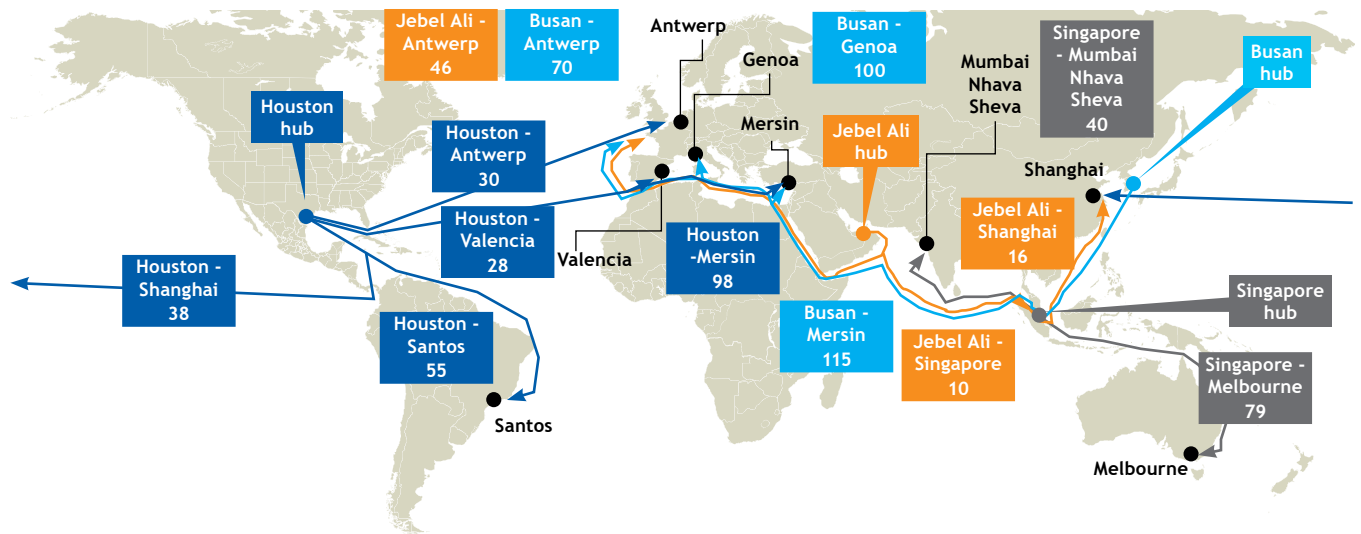
NS "will not walk away," railroad chief executive Alan Shaw pledged on 19 February.

**North America transborder freight up 3.5pc in Dec: BTS**

North American transborder freight increased in December by 3.5pc from a year earlier, boosted by higher oil prices and trade between the US and Mexico, according to the Bureau of Transportation Statistics (BTS).

Freight by all modes of transportation among the US,

POLYETHYLENE ROUTES BY EXPORTING PORT



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Canada and Mexico rose to \$125.8bn, climbing from \$121.7bn in December 2021. Oil prices were up by 6.6pc from a year earlier, contributing to the increased value of trade in the month, BTS said.

Trade between the US and Mexico also boosted the month's total, rising by 7pc from a year earlier to \$61bn, according to BTS data, while US-Canada freight rose by 0.2pc to \$60.7bn.

QUOTE OF THE WEEK

“Downstream demand has remained weak. Will there be a correction in prices?”  
 – Southeast Asian buyer

Truck freight climbed by 5.9pc to \$73.9bn, comprising the bulk of all transportation methods, and vessel transportation rose by nearly 10pc to 10.3bn. Rail freight fell by about 2pc to 16bn and pipeline transport dropped by about 4pc to \$10.2bn. The December shutdown of the 622,000 b/d Keystone crude pipeline near the Canadian border caused energy suppliers to temporarily switch to vessel transport.

Korea unveils roadmap for net zero in shipping by 2050

South Korea's maritime ministry (Mof) has announced its strategy to decarbonize the shipping sector by 2050, with a focus on hastening the transition to what it terms as "eco-friendly" vessels.

The roadmap is a pre-emptive response to stricter decarbonization regulations by the International Maritime Organization (IMO) and the international community, including Europe, Mof said on 14 February.

Mof expects the IMO in July to raise its international maritime carbon emissions reduction target from 50pc to 100pc by 2050, in addition to more economic regulatory measures such as a carbon levy system. The 80th session of the Marine Environment Protection Committee will be held

over 3-7 July and is expected to adopt the revised IMO Strategy for Reduction of GHG Emissions from Ships, according to the IMO.

Mof sees "significant ripple effects" stemming from the tighter regulations on the shipping industry, since charging a certain amount for each tonne of carbon emitted will directly raise transportation costs for shipping firms. This will consequently make it "inevitable" for firms to switch to carbon-neutral fuels to stay competitive.

The Mof has consequently laid out its four-point strategy to achieve carbon neutrality in the shipping sector by 2050, in what it describes as a first in Asia.



## Chemical Conversations: Tricon Energy and sustainability

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Listen to Argus' **Muhamad Fadhil** talk to Tricon Energy's President and CEO **Ignacio Torras** and Chief Sustainability Officer **Elizabeth Carlson** about how sustainability and ESG impact Tricon and its global customers.



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