CIREC monthly NEWS

Chemical industry reporting for Central and South East Europe Supplemented by developments in Russia & neighbouring states

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Czech Republic, Hungary, Poland, Slovakia South East Europe & Baltic States Eurasia Russia-Ukraine-Belarus-Kazakhstan-Uzbekistan-Azerbaijan

Product coverage including supply chains from olefins and aromatics to derivatives, organic chemicals, methanol and intermediates

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Central European petrochemical markets

- From the total of 22.663 million tons of crude imported into Poland in the first ten months in 2024, Saudi Arabia supplied 10.508 million tons followed by Norway which provided 8.775 million tons
- MOL and KazMunayGaz signed a cooperation agreement in December 2024 on oil and gas
 exploration and production, technology transfer, crude oil supply, and petrochemicals. The two
 companies are also looking at possible exports of Kazakh crude to Europe and Hungary
- Orlen announced on 11 December 2024 that its board had granted approval to stop construction of the Olefiny III complex and recalibrate investments into petrochemicals under Nowa Chemia

Central European polymer and chemical trade

- Polish imports of polyethylene totalled 1.164 million tons in the first ten months in 2024 against 1.042 million tons in the same period in 2023, with average prices falling from €1366.7 per ton to €1283.5 per ton
- Polish export shipments of PP increased to 333,575 tons in the first ten months last year against 179,808 tons in January to October 2023
- Closure of the EBSR plant at Kralupy impacted on Czech rubber trade in 2024. Exports of synthetic rubber dropped to 109,572 tons versus 127,581 tons in the same ten-month period in 2023 whilst imports increased from 107,332 tons to 177,879 tons in January to October 2023

Russian methanol markets

- Russian methanol exports dropped by over 300,000 tons in the first ten months in 2024 against the same period in 2023. Volumes to China were similar in both years, but the key factor was the loss of the EU market closed to Russian exporters after June 2023
- Russian domestic merchant sales of methanol increased in the first ten months in 2024 to 1.281 million tons against 1.243 million tons in the same period in 2023
- The Nakhodka methanol plant under construction in the Russian Far East is targeted predominantly
 on the Chinese market, it could have a negative effect on the existing methanol plants in Russia which
 have become dependent on China for export activity

Russian synthetic rubber production and trade

- Voronezhsintezkaucuk plans to increase its capacity for the production of divinyl-styrene thermoplastic elastomers (TEP) from 35,000 tpa to 80,000 tpa. The cost of reconstruction is estimated at 11 billion roubles
- The largest category of synthetic rubber production in Russia comprises SKS-SKMS which amounted to 98,582 tons in the first ten months last year
- Russian exports of synthetic rubber to China totalled \$457.930 million in the period January to October 2024 against \$370.515 million in the same period in 2023

Russian polymer production and trade

- Russian production of polyethylene increased to 2.865 million tons in the first ten months in 2024 against 2.624 million tons in January to October 2023. Production is expected to increase in 2025 after the expansion at Kazan and the start-up of the new PE plant in the Irkutsk Oblast
- Russian polypropylene production dropped slightly from 1.786 million tons to 1.740 million tons, whilst styrene polymer production rose from 385,728 tons to 401,952 tons

CENTRAL and SOUTH EAST EUROPE

Czech crude imports Jan-Oct 2024

Imports of Russian crude into the Czech Republic dropped from 6.212 million tons in the first ten months in 2023 to 5.260 million tons in the same period in 2024. Imports from Russia accounted for

Czech Crude Imports (million tons)			
Country	Jan-Oct 24	Jan-Oct 23	
Azerbaijan	2153.1	1622.9	
Kazakhstan	850.4	483.8	
Russia	2095.1	3727.5	
US	0.0	181.4	
Others	161.8	196.9	
Total	5260.4	6212.4	
Av Price	580.6	544.0	

39% of total crude purchases of 5.260 million tons in January to October 2024, down against 60% of the 6.212 million tons in 2023. Russian crude oil flows to the Czech Republic through the Druzhba were interrupted several occasions in December but were resumed quickly.

Azerbaijan increased crude shipments to the Czech Republic to 2.153 million tons in the first ten months in 2024 against 1.623 million tons in 2023. At the moment Czech refineries could not run at full capacity without Russian crude, but major changes are expected this year in the composition of Czech imports and the

expansion of non-Russian crude oil. These sources are intended to be delivered from the Trans-Alpine pipeline, bringing oil from the Italian port of Trieste.

MOL's oil diversification is now being forced to accelerate

MOL slightly increased its share of crude imports from Russia in the first nine months last year although volumes dropped to 3.146 million against 3.503 million tons. Overall imports of crude amounted to

Hungarian Oil Imports (kilo tons)			
Country	Jan-Sep 24	Jan-Sep 23	
Croatia	185.8	297.6	
Iraq	0.0	225.4	
Kazakhstan	0.0	568.5	
Russia	3,146.2	3,503.4	
Others	423.4	23.8	
Total	3,755.5	4,709.0	

3.756 million in the first ten months in 2024 against 4.709 million tons in 2023. Hungary receives a discounted price for Russian crude but has stated it is prepared to stop its Russian purchases if the EU helps bankroll its switch to other importers. Hungary's refineries could be ready to work without Russian crude by the end of 2026, but that would require EU cash.

MOL signed a wide-ranging cooperation agreement in December with KazMunayGaz, seeking opportunities in Kazakh upstream sector and oil exports to Hungary. This agreement

covers oil and gas exploration and production, technology transfer, crude oil supply, and petrochemicals. MOL is also looking at possible exports of Kazakh crude to Europe and Hungary.

Following the EU's ban on imports of Russian oil since December 2022, Kazakhstan has replaced some of the lost Russian oil that arrives in Germany via the Russian trunkline network and the northern leg of the Druzhba pipeline running across Belarus and Poland.

Polish Crude Imports (unit-kilo tons)		
Country	Jan-Oct 24	Jan-Oct 23
Saudi Arabia	10508.0	9785.1
Lithuania	0.0	25.8
Russia	0.0	1149.8
Kazakhstan	235.1	0.0
Nigeria	895.0	1118.1
Norway	8775.4	7102.6
US	1183.2	1218.3
UK	655.2	796.3
Total	22,663	21,458
Av € per ton	575.0	539.7

Polish crude imports Jan-Oct 2024

From the total of 22.663 million tons of crude imported into Poland in the first ten months in 2024, supplies from Saudi Arabia totalled 10.508 million tons followed by Norway which provided 8.775 million tons. Average prices for Polish crude purchases increased from \$539.7 per ton in the first ten months in 2023 to \$575.0 per ton last year.

The US was the only other supplier to provide more than a million tons last year, amounting to 1.183 million tons in the first ren months.

Margins have been in decline last year, dropping into single digits in the third quarter and ending in September at \$5.5.

Previously numbers quite often less than much less than \$10 were the norm for Orlen and other regional refiners until the start of 2022 and the indirect consequences resulting from the war in Ukraine.

Central European Olefin Production & Trade

Polish Petrochemical Production (unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
Ethylene	297.5	277.0	
Propylene	333.2	239.2	
Butadiene	43.514	42.978	
Toluene	0.038	0.473	
Phenol	31.622	32.209	
Polyethylene	258.0	225.7	
PVC	189.2	155.8	
Polypropylene	271.6	223.0	

Polish petrochemical production Jan-Oct 2024

Ethylene production in Poland increased slightly from 277,000 tons in January to October 2023 to 297,500 tons in the same period in 2024, whilst propylene rose from 239,200 tons to 333,200 tons. Propylene production has been increased this year through start-up of the Polimery Police plant in Poland. Butadiene production at Plock rose marginally to 43,514 tons in the first ten months from 42,978 tons last year. Nearly all of the butadiene produced at Plock is consumed by Synthos.

In the plastics sector polyethylene production in Poland amounted to 258,000 tons in January to October 2024 versus 225,700 tons in 2023. Polypropylene production increased from 223,000 tons

to 271,600 tons. PVC production increased from 155,800 tons to 189,200 tons.

Main factors cited by Orlen for stopping Olefiny III

- inadequately defined scope of the investment, i.e. not all required OSBL infrastructure have been planned
- underestimated financing costs and time necessary for construction
- underestimated necessary CAPEX, which would increase total project costs up to zl 45-51 billion

Orlen confirms scaling down of Olefiny III

Orlen announced on 11 December 2024 that taken the decision to stop construction of the Olefiny III complex. The project, which had been developed and started under the

previous management is expected to continue in a much-restructured format under the name New Petrochemicals or Nowa Chemia.

Olefiny III-Nowa Chemia contractors

Orlen is now conducting negotiations with its' business partners involved in the Olefiny project and to judge how to take investments forward under Nowa Chemia. By 30 September 2025, Orlen's management board has set the challenge of preparing and publishing a revised budget for what remains of Olefiny III together with the required OSBL infrastructure.

Contractors Hyundai Engineering and Técnicas Reunidas originally secured the project contract from Orlen in June 2021. The construction of the Olefiny III complex was originally conceived as one of the key elements in the transformation of Orlen's existing refining and petrochemical assets. The Olefiny III complex included a plant that produces olefins using the steam cracking process, in addition to energy, auxiliary and infrastructure installations and systems.

By the end of the third quarter in 2024, the amount of capital expenditure outlaid for the Olefiny III complex had amounted to zl 12.6 billion (€2.958 billion). Further work will now be conducted under within "New Petrochemicals" project in the optimized scope rationalizing required CAPEX.

Focus of New Petrochemicals project at Plock

The decision of the company's corporate bodies to abandon Olefiny III is aimed at minimizing value damage that have been faced had the project been continued in its current scope.

Current activity will now concentrate on the core olefin unit (ISBL) and additional infrastructure (OSBL). Orlen's management stated that some relevant design and technical problems of ISBL unit were identified and recognized. Olefiny III was started not only to replace the existing capacities, but also to

increase the Group's share in the European petrochemical market from around 5% to around 6.4%.

In the new format, the construction of ethylene unit is expected to be undertaken raising capacity to 740,000 tpa but it is important to note that this plant will not be operational before 2030. Originally, the investment was to be completed at the beginning of 2024, but during the PiS government, the deadline was postponed to 2027. Although the decision to construct Olefiny III was taken in 2018, it was originally considered almost twenty years ago after the modernisation of Olefiny II.

In order to reduce the negative economic effects of its investment in Olefiny III, Orlen wants to use the infrastructure as a basis for developing the Nowa Chemia project. This project is intended at this stage to include the construction of a modern installation for the production of monomers. It will also focus on the company's sales capabilities in the area of ethylene oxide and glycols, styrene and butadiene.

Central European Chemical Prices 2024 (€/ton)					
Product	June	Jul	Aug	Sep	Oct
Ethylene	1335.7	1318.0	1307.4	1245.9	1304.8
Propylene	841.6	944.6	973.6	891.5	811.0
Butadiene	892.0	885.7	909.2	841.2	882.4
Benzene	769.7	878.2	794.8	826.8	843.8
Toluene	1010.7	1014.0	956.1	874.3	807.3
Styrene	1435.3	1236.6	1294.6	1366.1	1129.9

Polish Propylene Imports (unit-kilo tons)			
Country	Jan-Oct 24	Jan-Oct 23	
Bulgaria	3.029	13.119	
Croatia	0.000	3.718	
Czech Republic	5.750	15.182	
Germany	68.745	45.907	
Hungary	0.000	2.337	
Serbia	0.000	4.828	
Netherlands	0.000	16.677	
Others	1.213	2.325	
Total	79.459	104.094	
Av price	847.2	897.0	

Polish Butadiene Imports (unit-kilo tons)			
Country	Jan-Oct 24 Jan-Oct 23		
Austria	31.641	25.173	
Czech R	1.530	0.909	
Germany	21.715	20.159	
Hungary	28.843	17.981	
Others	1.381	4.252	
Total	84.203	68.473	
Av € per ton	880.4	922.8	

Hungarian Propylene Exports (unit-kilo tons)			
Jan-Sep 24 Jan-Sep 23			
Total	63.777	62.988	
Av € per ton	941.9	1096.9	

Hungarian Butadiene Exports (unit-kilo tons)			
Jan-Sep 24 Jan-Sep 23			
Total	41.509	30.909	
Av € per ton	841.5	856.9	

Czech Olefin Imports (unit-kilo tons)			
Product Jan-Oct 24 Jan-Oct 23			
Ethylene	3.658	28.745	
Propylene	36.249	30.875	
Butadiene	37.808	57.484	

Czech Olefin Exports (unit-kilo tons)		
Product Jan-Oct 24 Jan-Oct 23		
Ethylene	13.741	12.369
Propylene 9.332 18.075		

months in 2023.

Central European petrochemical prices

Margins for petrochemical products in Central Europe faced significant pressures last year even if prices were in line with recent historical averages. Of the olefin monomers, ethylene prices started at €1335.7 per ton in January 2024, dropping slightly to €1304.8 per ton in October. Butadiene prices started at €707 per ton in January and rose to €854.3 per ton in September whilst propylene declined from €861.7 per ton in January to €882.4 per ton in September.

Toluene and styrene prices in Central Europe trended lower in the second half of the year, whilst benzene tended to stabilise and averaged €843.8 per ton in October.

Polish propylene imports, Jan-Oct 2024

Poland imported 79,459 tons of propylene in January to October last year against 101,094 tons in January to October 2023. Imports declined last year due to the availability of propylene from the new Polimery Police plant. This allowed a surplus of over 11,000 tons to be exported. Average import prices dropped from €897.0 per ton to €847.2 last year. Germany was the main supplier to Poland, shipping 68,745 tons against 45,907 tons in the first ten months last year.

Polish butadiene imports, Jan-Oct 2024

Butadiene import prices for Poland rose slightly from 880.4 per ton on average in January to October 2023 to €922.8 in January to October 2023, with volumes rising from 68,473 tons to 84,203 tons. Synthos is the major importer of butadiene in Poland, whilst Hungary was the largest supplier, shipping 28,843 tons in the first ten months against 17,981 tons in 2023. The increase in imports in 2024 into Poland was driven by the increase in synthetic rubber production at Oswiecim.

Hungarian propylene & butadiene imports, Jan-Sep 2024

Exports of propylene from Hungary amounted to 63,777 tons in January to September last year against 62,988 tons in January to September 2023, most of which went to Slovakia. Prices averaged €941.8 per ton in the first nine months against €1096.9 per ton in 2023. Hungarian butadiene exports amounted to 41,509 tons in the first nine months against 30,909 tons in the same

period in 2023. Shipments into Poland totalled 23,129 tons in January to September against 17,014 tons last year whilst exports to Germany rose from 1,995 tons to 8,211 tons. Average prices for Hungarian butadiene exports fell to €841.5 per ton versus €856.9 in 2023.

Czech olefin monomer trade, Jan-Oct 2024

Czech ethylene trade fell in volume last year, as imports fell from 28,745 tons in January to October 2023 to 3,658 tons in the same period in 2024. Ethylene exports from the Czech Republic amounted to 13,741 tons against 12,369 tons in the first ten

Central European Polyolefin Trade

Czech Polyethylene Imports (unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
LDPE	91.690	87.565	
LLDPE	17.484	19.706	
HDPE	102.065	99.403	
EVA	10.217	8.925	
Other	34.880	36.266	
Total	256.336	251.865	
Av € per ton	1486.7	1600.7	

Czech Polyethylene Exports (unit-kilo tons)				
Product	Jan-Oct 24	Jan-Oct 23		
LDPE	31.743	23.442		
LLDPE	3.517	3.013		
HDPE	280.697	301.233		
EVA	3.302	2.784		
Other	13.344	19.007		
Total	332.603	349.478		
Av € per ton	1385.7	1299.0		

Czech polyethylene trade Jan-Oct 2024

Czech prices for both imports and exports of polyolefins have trended lower in the first ten months in 2024 against the corresponding period in 2023, but at the same time trade has increased slightly by volume.

For imports of all forms of polyethylene, Czech inward shipments amounted to 256,336 tons in January to October 2024 against 251,865 tons in the same period in 2023, with prices dropping from €1600.7 per ton to €1486.7 per ton. Germany was the largest source of polyethylene imports, followed by the Netherlands and Belgium.

Polyethylene exports from the Czech Republic amounted to 332,603 tons in the first ten months last year against 349,478 tons in 2023. Average prices increased from €1299.0 per ton in 2023 to €1385.7 per ton in 2024.

HDPE export shipments comprised 280,697 tons in the first ten months in 2024 against 301,233 tons in the same period in 2023. Germany was the largest destination for Czech HDPE supplied from Litvinov. Other important markets for Czech polyethylene exports include Poland, Italy and Belgium.

Polish Polyethylene Supply/Demand Balance (unit-kilo tons)					
Jan-Oct 24 Jan-Oct 23					
Production	258.0	225.7			
Exports	278.2	291.8			
Imports 1163.8 1041.5					
Market Balance	1111.3	1020.7			

Polish polyethylene trade Jan-Oct 2024

Polish total foreign trade in polyethylene increased in the first ten months last year against the same period in 2023 for both imports and exports. Consumption of polyethylene increased in the first ten months in 2024 to 1.111 million tons against 1.021 million tons in the same period in 2023.

Polish imports of polyethylene totalled 1.164 million tons in the first ten months in 2024 against 1.042 million tons in the same period in 2023, with average

Polish Polyethylene Imports (unit-kilo tons)				
Country	Jan-Oct 24	Jan-Oct 23		
LDPE	302.227	283.454		
LLDPE	183.646	170.881		
HDPE	374.525	352.749		
EVA	16.619	16.401		
EAO	239.763	167.250		
Others	47.036	50.761		
Total	1163.816	1041.496		
Av € per ton	1283.5	1366.7		

HDPE is the largest category of imported polyethylene into Poland, amounting to 374,525 tons in January to October 2024 versus 352,749 tons in January to

prices falling from €1366.7 per ton to €1283.5 per ton.

October 2023. Germany is the largest supplier of HDPE to the Polish market.

LLDPE imports rose from 170,881 tons in January to

October 2023 to 183,646 tons in the corresponding period in 2024. Most of the LLDPE imports were

sourced mostly from West Europe, including France, the Netherlands and Germany. LDPE imports increased to 302,227 tons versus 283,454 tons in 2023. last year. Imports from ethylene alpha olefins increased in the first ten months in 2023 from 167,250 tons to 239,763 tons in the same period in 2024.

Polish polyethylene exports amounted to 278,190 tons in the first ten months in 2024 against 291,799 tons in the same period in 2023. Average prices for polyethylene exports from Poland fell overall in 2024, dropping to €1281 per ton. Prices for export categories have tended to drop whilst imports have risen.

Polish Polyethylene (unit-kilo tons)				
Product Group Jan-Oct 23 Jan-Oct 2				
LDPE	61.953	52.358		
LLDPE	15.894	18.359		
HDPE	169.422	197.582		
EVA	2.977	2.132		
EAO	19.444	17.237		
Other	8.500	4.130		
Total	278.190	291.799		
€ per ton	1281.2	1654.0		

2024 whilst LDPE exports rose from 52,358 tons to 61,953 tons. Exports of ethylene alpha olefins amounted to 19,444 tons in the first ten months in 2024.

Hungarian polyethylene trade Jan-Sep 2024

Hungarian polyethylene exports amounted to 237,228 tons in January to September last year against 251,692 tons in January to September 2023, whilst average prices dropped from €1247.1 per ton to €1246.2 per ton. Revenues for polyethylene exports in January to September dropped from €295.6 million in 2024 to

Exports of HDPE from Poland declined from 197,582 tons in January to October 2023 to 169,422 tons in the same period in

€313.9 million in 2023.

EVA

Other

Total

Av € per ton

Hungarian Polyethylene Exports (unit-kilo tons)					
Product Jan-Sep 24 Jan-Sep 23					
LLDPE	3.443	5.009			
LDPE	59.623	66.588			
HDPE	163.874	170.418			
Total	237.228	251.692			
Av € per ton 1246.2 1247.1					

Hungarian Polyethylene Imports (unit-kilo tons) Product Jan-Sep 24 Jan-Sep 23 LLDPE 21.968 25.571 LDPE 33.928 34.699 **HDPE** 74.764 65.386 EAO 12.893 7.169

In terms of category HDPE exports dropped from 170,418 tons in January to September 2023 to 163,874 tons whilst LDPE exports dropped from 66,588 tons to 59,623 tons.

Hungary remains a net exporter of LDPE and HDPE, whilst continues to be a net importer of LLDPE and ethylene copolymers. Imports of all grades of polyethylene into Hungary amounted to 173,351 tons in January to September last year against 153,706 tons in January to September 2023.

Hungarian import prices for polyethylene decreased on average from €1586.8 per ton to €1528.7 in January to September last year. The largest category of polyethylene imports comprised HDPE, which rose from 65,386 tons to 74,764 tons.

Polish PP Trade Jan-Oct 2024

In contrast to the slight improvement in the Polish polyethylene market last year, polypropylene consumption has been more restrained dropping from 801,100 tons in

January to October 2023 to 725,500 tons in January to October 2024.

3.107

17.774

153.706

1586.8

Polish PP Supply/Demand Balance (unit-kilo tons)						
Jan-Oct 24 Jan-Oct 23						
Production	271.6	223.0				
Exports	333.6	179.8				
Imports	787.5	758.0				
Market Balance 725.5 801.1						

4.833

24.965

173.351

1528.7

Polish	polyp	oropyle	ne	imports,	inclu	ıding	ho	mo	grade	and
copolyr	ners,	increas	sed	I in the fire	st ten	mon	ths	to 78	87,481	tons
against	t 757,	957 tor	ns i	n the sam	ne pe	riod i	n 20	023.	How	ever,
the ke	y to	lower	CO	nsumptio	n in	Pola	nd	has	been	the
signific	ant ris	se in ex	ро	rt activity.						

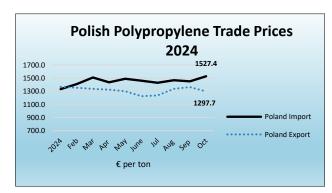
Average prices for all types of polypropylene imports increased from €1460.4 per ton to €1560.0 per ton. Homo

grade polypropylene imports increased from 491,260 tons in January to October 2023 to 496,083 tons in 2024, whilst copolymer imports increased from 245,519 tons to 268,527 tons. Total import costs of propylene polymers amounted to €882.123 million against €880.023 million in the same eight months in 2023.

Polish Polypropylene Imports (unit-kilo tons)					
Category	Jan-Oct 24	Jan-Oct 23			
PP homo	496.083	491.260			
Polyisobutylene	2.333	2.233			
Propylene copolymers	268.527	245.519			
Other	20.539	18.945			
Total	787.481	757.957			
Av € per ton	1560.0	1460.4			

Export shipments from Poland more than doubled in the first ten months last year, rising to 333,575 tons

against 179,808 tons in January to October 2023. Homo polymer grades comprised the main category of Polish polypropylene exports, where Germany was the largest destination.



Polish Polypropylene Exports (unit-kilo tons)					
Category Jan-Oct 24 Jan-Oct 23					
PP homo	248.506	118.779			
Polyisobutylene	1.002	0.592			
Propylene copolymers	77.460	57.650			
Other	6.606	2.786			
Total	333.575	179.808			
Av € per ton	1305.5	1459.5			

Hungarian Polypropylene Imports (unit-kilo tons)					
Product Jan-Sep 24 Jan-Sep 23					
PP homo	101.440	86.745			
Propylene copolymers	41.944	38.598			
Others	16.213	23.522			
Total	159.596	148.864			
Av € per ton	1507.9	1629.0			

Hungarian Polypropylene Exports (unit-kilo tons)					
Product Jan-Sep 24 Jan-Sep 2					
PP homo	94.938	94.491			
Propylene copolymers	62.354	67.843			
Others	15.101	11.412			
Total	172.393	173.745			
Av € per ton	1348.9	1295.5			

Czech Polypropylene Exports (unit-kilo tons)					
Product Jan-Oct 24 Jan-Oct 23					
PP Homo	194.644	184.386			
Propylene Copolymers	40.871	39.676			
Other	4.677	27.895			
Total	240.192	251.957			
Av € per ton	1477.3	1364.9			
	Czech polypropylene imports (unit-kilo tons)				
Product	Jan-Oct 24	Jan-Oct 23			
PP Homo	244.789	247.269			
Propylene Copolymers	183.228	180.582			
Other	15.558	12.121			
Total	443.575	439.972			
Av € per ton	1583.1	1599.9			

In terms of pricing, imports into Poland usually face a higher premium than exports primarily due to the volumes of propylene copolymers than enter the country. The price differential between imports and exports in 2024 attained averages around €200 per ton, despite starting at a similar figure at the start of the year.

Exports of homo polymer grade polypropylene from Poland more than doubled from 118,779 tons in the first ten months in 2023 against 248,506 tons in the same period in 2024, mainly

due to the start-up of the Polimery Police plant. This plant is not fully operational yet, but its limited operation has already helped to affect the ratio between imports and exports. When fully operational Polimery Police's target portfolio includes over 30 types of propylene polymers under the Gryfilen brand.

Hungarian polypropylene trade Jan-Sep 2024

Exports of all forms of polypropylene from Hungary amounted to 172,393 tons in January to September

2024 versus 173,745 tons in the corresponding period in 2023, with average prices dropping slightly to €1357.8 per ton. Homo-grade PP provides the main category of Hungarian polypropylene exports, amounting to 94,938 tons in the first nine months last year versus 94,491 tons in 2023.

For imports of all forms of polypropylene, Hungarian inward shipments increased to 159,596 tons in January to September 2024 from 148,864 tons in 2023, with average prices dropping from €1629.0 per ton to €1507.9 per ton. Imports of propylene copolymers increased from 38,598 tons to 41,944 tons whilst homo grade polypropylene imports increased from 86,745 tons to 101,440 tons.

Czech polypropylene trade Jan-Oct 2024

Exports of all forms of polypropylene from the Czech Republic amounted to 240,192 tons in January to October 2024 versus 251,957 tons in the same period in 2023, with average prices rising from €1364.9 per ton to €1477.3 per ton in 2024.

Homo-grade PP provides the main category of Czech polypropylene exports, amounting to 194,644 tons in the first ten months last year versus 184,386 tons in 2023. For imports of all forms of polypropylene, Czech inward shipments amounted to 443,575 tons in January to October 2024 from 439,872 tons in 2023, with average prices dropping from €1599.9 per ton to €1583.1 per ton. Imports of propylene copolymers increased slightly from 180,582 tons to 183,228 tons whilst homo grade polypropylene imports dropped from 247,269 tons to 244,789 tons.

Central European Rubber Markets

Czech Rubber Trade (unit-kilo tons)		
	Jan-Oct 24	Jan-Oct 23
Exports synthetic rubber	109.572	127.581
Imports synthetic rubber	117.879	107.332
Imports natural rubber	78.173	68.330

Czech synthetic rubber trade Jan-Oct 2024

Exports of synthetic rubber amounted to 109,572 tons in January to October 2024 versus 127,581 tons in the same ten-month period in 2023. At the same time imports increased from 107,332 tons to 177,879 tons in January to October 2023.

Czech butadiene rubber exports (unit-kilo tons)		
Country		Jan-Oct 23
France	2.913	3.031
Germany	5.341	0.000
Hungary	6.558	6.724
India	14.776	12.035
Italy	3.774	0.000
Poland	9.473	12.329
Romania	6.723	0.000
Serbia	6.231	2.581
Slovakia	5.323	11.067
South Korea	5.138	11.538
Spain	4.196	0.000
Turkey	7.254	4.006
US	0.179	0.857
Others	11.309	34.105
Total	89.188	98.275
Revenues €	154.054	196.549
Av € per ton	1736.6	1658.3

Czech butadiene rubber trade Jan-Oct 2024

The Czech Republic exported 89,188 tons of butadiene rubber in the first ten months in 2024 against 98,275 tons in the same period in 2023. Average prices rose from €1658.3 per ton to €1736.6 per ton

Czech exports of butadiene rubber to India amounted to 14,776 tons in January to October 2024 against 12.035 tons in the same period in 2023. Other important markets included Poland where exports amounted to 9,473 tons against 12,329 tons. Besides exports the Czech Republic also imported 25,023 tons of butadiene rubber in the first ten months in 2024. Imports were sourced largely from Germany and the US.

Hungarian synthetic rubber trade Jan-Sep 2024

Hungarian imports of synthetic rubber amounted to 80,934 tons in January to September against 100,135 tons in January to September last year. Average prices increased from €2247.7 per ton to €2454.0 in 2024.

Butadiene rubber imports into Hungary dropped from 35,290 tons to 21,056 tons, with the largest source coming from Indonesia. SBR

imports rose from 39,564 tons to 43,228 tons. Synthetic rubber exports from Hungary amounted to 44,615 tons in the first nine months last year of which SBR grades accounted for 38,588 tons.

Hungarian synthetic rubber Imports (unit-kilo tons)		
Product	Jan-Sep 24	Jan-Sep 23
Butadiene Rubber	21.066	35.290
SBR	43.228	39.564
Other	14.972	19.445
Total	80.934	100.135
Revenues € mil	198.611	225.075
Av € per ton	2454.0	2247.7

MOL sells its stake in the rubber plant at Tiszaujavros

MOL and Japan's ENEOS Materials Corporation signed a purchase agreement in December, according to which ENEOS will buy MOL's 49% stake in ENEOS MOL Synthetic Rubber Kft. Following the transaction, ENEOS will become the 100% owner of the company at Tiszaujvaros. The transaction is

expected to close in the first quarter of 2025, subject to regulatory approval.

MOL started to establish a plant suitable for the production of synthetic rubber in the field of MOL Petrochemicals in 2015 in a joint venture with JSR Corporation of Japan. The S-SBR (styrene butadiene rubber solvent) plant started operations in 2020. JSR's 51% stake in the joint venture was acquired by ENEOS in 2022. According to the agreement, ENEOS will continue its manufacturing activities at the Tiszaujvaros plant. MOL will remain a key raw material supplier, trading and service partner of the company in the future.

Central European rubber trade Jan-Oct 2024

For all types of synthetic rubber imports into Poland average prices dropped from €2216.9 in January to October 2023 to €1831.1 in the first ten months in 2024. Hungarian import prices rose from €2267.0 per ton to €2468.8 per ton, which is higher than elsewhere in Central Europe. This is determined predominantly by the higher value grades imported into Hungary.

Polish Synthetic Rubber Imports (unit-kilo tons)		
Product	Jan-Oct 24	Jan-Oct 23
ESBR	25.042	17.743
Block SBR	35.989	32.075
S-SBR	26.408	17.849
Butadiene Rubber	64.747	46.815
Butyl Rubber	3.270	3.846
HBR	8.257	8.295
NBR	8.389	5.502
Isoprene Rubber	35.147	11.097
EPDM	36.038	36.455
Others	25.519	42.423
Total	268.806	222.100
Av € per ton	1,860.5	2,131.1

Polish Exports of Synthetic Rubber (unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
SBR	177.707	154.413	
Butadiene Rubber	61.499	38.745	
Isoprene Rubber	30.975	9.411	
Others	16.576	30.203	
Total	286.757	232.772	
Av € per ton	1647.5	1584.1	

Synthos Production (unit-kilo tons)		
Product	Jan-Oct 24	Jan-Oct 23
Polystyrene	55.5	61.1
EPS	68.3	76.9
Synthetic Rubber	216.0	168.3

Poland imported a total of 268,806 tons of synthetic rubber in January to October 2024 against 222,100 tons in the same period in 2023. By category, butadiene rubber was the largest product, accounting for 64,747 tons against 46,815 tons in the same period in 2023. Isoprene rubber imports jumped from 11,097 tons in the first ten months last year to 35,147 tons in the same period in 2024. The largest suppliers of all grades of synthetic rubber in the first ten months in 2024 included Germany, Belgium and Saudi Arabia.

Natural rubber imports into Poland totalled 80,534 tons in the first ten months last year at an average price of €1690 per ton. Natural rubber accounts for around a third of total rubber consumption in Poland.

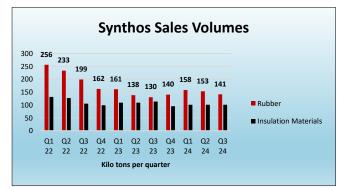
Synthetic rubber exports from Poland amounted to 286,757 tons in the first ten months in 2024 against 232,772 tons in January to October 2023. Exports of butadiene rubber from Poland amounted to 61,499 tons in January to October versus 38,745 tons in the same period in 2023. The largest category of rubber exports focuses on SBR grades.

Prices of synthetic rubber exports from Poland increased from €1584.1 per ton in the first ten months last year to €1647.5 per ton last year. Although both import and export volumes for synthetic rubber have been very similar last year, the prices for imported grades mostly exceed export prices. The trend for all forms of trade have been downward since the start of 2023.

Polish synthetic rubber production and domestic market Jan-Oct 2024

Synthetic rubber production at Oswiecim for Synthos amounted to 216,000 tons in January to October 2024 against 168,300

tons in 2023. Synthos has managed to diversify its export markets, which has allowed the company to increase production over 2023. At the same time the production of synthetic rubber has been affected by demand side factors which saw a reduction of consumption in 2023. Although synthetic rubber production increased in 2024 the extra output was channelled into export activity rather than domestic consumption.



Synthos performance 2024

Despite the drop in sales of synthetic rubber by Synthos in the past three years the company is reporting reasonable financial results. Total sales volumes for Synthos in the first three quarters in 2024 amounted to 809,000 tons compared to 807,000 tons in the same period in 2023. Sales volumes of rubbers increased 5%, as Synthos increased exports of butadiene rubber and SBR grades. Sales could have been higher had it not been for production problems in the third

quarter at both Schkopau in Germany and Kralupy in the Czech Republic. The production problems in the third quarter were reflected in lower sales than recorded in the first and second quarters in 2024 but still remained higher than in 2023. Whilst rubber sales increased volumes of insulation materials fell by 8%, or 27,000 tons, against the first three quarters in 2023. This was due to the low consumption in the construction sector which affected sales of white grades of expandable polystyrene. Grey grades of expandable polystyrene which are used in packaging remained stable.

Central European aromatics and derivatives

Polish Aromatic Exports (unit-kilo tons)		
Product	Jan-Oct 24	Jan-Oct 23
Benzene	130.455	127.506
Bisphenol A	4.089	8.029
P Anhydride	4.858	2.823
PTA	211.067	115.284
Styrene	1.184	0.065
TDI	3.471	3.249
Toluene	1.209	2.605

Polish Aromatic Imports (unit-kilo tons)		
Product	Jan-Oct 24	Jan-Oct 23
Adipic Acid	10.257	10.001
Bisphenol A	6.630	14.089
Caprolactam	10.884	10.442
Ethylbenzene	85.115	107.206
Paraxylene	39.403	0.000
Phenol	90.987	70.260
Phthalic Anhydride	31.825	30.110
PTA	11.511	5.677
Styrene	64,537	46,651
TDI	68.695	64.732
Toluene	18.930	21.652

same period in 2023.

Polish aromatic exports Jan-Oct 2024

Polish exports of benzene totalled 130,455 tons in January to October 2024 against 127,506 tons in the same period in 2023. Exports to Germany increased in the first ten months in 2023 from 86,311 tons to 113,922 tons in the same period in 2024, with average prices rising from 754.3 per ton to €946.8 per ton. Benzene exports from Poland are supplied largely from Petrochemia Blachownia at Kedzierzyn-Kozle.

PTA is the only aromatic product where exports are shipped in significant volume from Poland. PTA is also imported into

Poland, amounting to 11,511 tons in the first ten months in 2024.

Polish aromatic imports Jan-Oct 2024

Phenol imports into Poland amounted to 90,987 tons in January to October 2024 which was up from 70,260 tons in 2023. Germany was the dominant supplier of phenol to Poland, shipping 67,665 tons against 49,963 tons in the same period in 2023. Spain and Finland accounted for smaller shipments.

Average prices for phenol imported into Poland dropped in the first ten months to €1155.7 per ton measured against €1215.1 per ton in 2023. Increased phenol imports offset the drop in phenol production at Plock in the first ten months in 2024 to 31.622 tons versus 32,668 tons in the

In other product areas, styrene imports into Poland amounted to 64,537 tons in the period January to October 2024 against 46,651 tons in the same period in 2023. The Netherlands was the largest supplier shipping 21,283 tons against 21,930 tons in January to October 2023. Saudi Arabia supplied 7,707 tons in the first ten months in 2024, the first time that styrene had been sold into Poland. Ethylbenzene imports amounted to 85,115 tons against 107,206 tons in the same period last year. All the ethylbenzene was shipped from Kralupy to Oswiecim, all within the structures of the Synthos Group.

Caprolactam imports into Poland amounted to 10,884 tons in the first ten months last year versus 10,442 tons in the same period in 2024. Caprolactam production remains idle at Pulawy, operated by Grupa Azoty, although the Tarnow plant is working. The PA6 product chain remains under pressure although logistical constraints caused by attacks in Red Sea resulted in a greater demand for the use of products from Europe.

Polish Exports of PTA (unit-kilo tons)		
Producer	Jan-Oct 24	Jan-Oct 23
Belarus	0.000	1.322
Belgium	3.004	0.240
France	2.508	7.492
Germany	261.131	159.669
Lithuania	15.473	1.618
Switzerland	0.000	4.297
Turkey	12.552	8.772
Others	26.167	13.864
Total	320.836	197.273
Av Price €	771.9	851.3

In the first ten months Poland imported over 39,403 tons of paraxylene against zero in the same period in 2023. France was the main supplier followed by the Netherlands.

Polish PTA exports Jan-Oct 2024

PTA exports increased sharply in the first ten months from 197,273 tons in 2023 to 320,836 tons in the same period in 2024. Production was reduced substantially in 2023 due to a combination of weak demand and extended maintenance. Exports to Germany increased from 159,669 tons to 261,131 tons. Average prices for PTA changed from €851.3 per ton in the first ten months in 2023 to €771.9 per ton.

Czech Aromatic Exports (unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
Aniline	71.199	57.950	
Benzene	18.244	16.445	
Toluene	8.547	9.497	
Ethylbenzene	81.813	103.566	
Styrene	9.170	10.720	
Caprolactam	16.721	16.370	
P Anhydride	6,825	7,255	
Czech Aromatic Imports (unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
Benzene	34.500	22.489	
Toluene	4.796	5.758	
Styrene	15.351	24.739	
Bisphenol A	26.584	23.810	

Czech aromatic trade Jan-Oct 2024

Regarding Czech trade in aromatic monomers and derivatives, styrene exports from Kralupy amounted to 9,170 tons against 10,720 tons in January to October 2023. At the same time imports of styrene dropped from 24,739 tons to 15,351 tons. Styrene prices increased from €1064.8 per ton to €1284.2 in 2024.

Benzene imports into the Czech Republic increased in the first ten months in 2024 to 34,500 tons against 22,489 tons in January to October 2023, whilst toluene imports dropped from 5,758 tons to 4,796 tons. Benzene imports are sourced from Poland, Hungary and Serbia. Czech benzene exports increased to 18,244 tons in January to October 2024 against 16,445 tons in the same period in 2023, whilst toluene exports dropped from 9,497 tons to 8,547 tons. Imports of bisphenol A rose from 23,810 tons to 26,584 tons.

Aniline exports amounted to 71,199 tons in the first ten months in 2024, of which 58,876 tons were shipped to Hungary. This represented an increase against 50,791 tons in January to October 2023 from the total of 57,950 tons. All of the aniline shipped from the Czech Republic is produced at Ostrava by BorsodChem-MCHZ, and most of the exports are shipped to BorsodChem in Hungary.

Czech caprolactam exports increased from 16,370 tons to 16,721 tons, with prices rising from €1507.0 per ton to €2035.2 in 2024. Italy was the largest destination for Czech caprolactam exports, amounting to 7,875 tons. Other end destinations included Slovenia. The Czech Republic exported 6,825 tons of phthalic anhydride in the first ten months in 2024 for €8.760 million. This compares against 7,255 tons

Czech Bisphenol A Imports		
Product	Jan-Oct 24	Jan-Oct 23
Total Ktons	26.584	23.810
Av Price per ton	1378.5	1468.3
Czech Epoxy Resin Exports		
Product	Jan-Oct 24	Jan-Oct 23
Total Ktons	42.196	39.577
Av Price per ton	2275.1	3165.1

in January to October 2023 for €10.538 million. Phthalic anhydride is supplied by the Czech Republic from the Deza plant at Valasske Mezirici.

Czech Bisphenol A imports & epoxy resin exports

Bisphenol A imports into the Czech Republic totalled 26,584 tons in January to October 2024 against 23,810 tons in the same period in 2023. South Korea increased shipments from 10,518 tons to 21,490 tons. The largest user of bisphenol A in the Czech

Republic is Spolchemie at Ust nad Labem, where epoxy resins are produced.

Czech exports of epoxy resins amounted to 42,196 tons in the first ten months in 2024 against 39,577 tons in 2023. Prices fell sharply from €3165.1 per ton to €2275.1 per ton in 2023. Germany remains the largest market for Czech epoxy resins, accounting for 15,695 tons in the first ten months in 2024

Hungarian Benzene Exports (unit-kilo tons)		
Country	Jan-Sep 24	Jan-Sep 23
Czech Republic	3.259	11.900
Germany	7.912	1.995
Poland	15.352	17.014
Others	6.517	0.000
Total	32.901	30.909
Av € per ton	817.3	856.9

which was down from 17,709 tons in 2023. Spolchemie's capacity for epoxy resin production amounts to 100,000 tpa.

Hungarian aromatic trade Jan-Sep 2024

Hungarian benzene exports amounted to 32,901 tons in January to September against 30,909 tons in the same period in 2023. Benzene production in Hungary takes place at Szazhalombatta. Shipments from this refinery to the Czech Republic dropped from 11,900 tons to 3,259

tons whilst shipments to Poland dropped from 17,014 tons to 15,352 tons.

Toluene imports into Hungary amounted to 31,284 tons in January to September last year for costs of €26.783 million. This increased from 25,854 tons in the first nine months in 2023 for costs of €29.418 million. Toluene is used by BorsodChem in the production of TDI.

Central European isocyanates & polyols

Hungarian TDI Exports (unit-kilo tons)			
Country	Jan-Sep 24	Jan-Sep 23	
Austria	2.424	2.216	
Belgium	24.801	23.834	
Germany	8.532	6.912	
Italy	22.159	20.492	
Poland	21.289	19.433	
Portugal	4.734	8.169	
Romania	10.458	10.817	
Spain	7.601	7.585	
Turkey	28.292	24.317	
Others	53.862	53.911	
Total	184.151	177.686	
Av € per ton	2538.3	2579.8	

Hungarian TDI-MDI exports Jan-Sep 2024

Hungarian TDI exports rose in January to September to 184,151 tons against 177,686 tons in January to September 2023. Average prices dropped slightly from €2579.8 per ton to €2538.3 per ton. Multiple factors have influenced the decline in prices last year such as polyurethane demand and feedstock costs.

Exports of TDI from Hungary to Belgium rose from 23,834 tons in the first nine months last year to 24,801 tons in January to September, whilst volumes to Italy increased from 20,492 tons to 22,159 tons.

In Central Europe shipments to Poland increased from 19,433 tons to 21,289 tons and rose to Turkey from 24,317 tons to 28,292 tons. Shipments to Romania dropped from 10,817 tons to 10,458 tons.

MDI exports from Hungary amounted in January to September to 162,840 tons against 122,487 tons in January to September 2023.

MDI export prices have undergone a different cycle to TDI in the past two years but have reached

similar levels standing at €1935.1 per ton in 2024 against €2538.3 for TDI.

Hungarian MDI Exports (unit-kilo tons)			
Country	Jan-Sep 24	Jan-Sep 23	
Belgium	10.425	9.025	
Czech Republic	8.342	4.874	
Germany	16.693	15.436	
Algeria	3.370	0.947	
Italy	7.899	7.901	
France	5.402	7.188	
Spain	3.692	3.622	
UK	6.185	4.191	
Netherlands	7.427	2.798	
Poland	28.893	23.836	
Romania	10.830	12.519	
Turkey	18.418	8.273	
Others	35.265	21.878	
Total	162.840	122.487	
Av € per ton	1935.1	2043.1	

Poland was the largest destination for Hungarian MDI exports, taking 28,893 tons in the first nine months in 2024 versus 23,836 tons in January to September 2023. Exports to France dropped from 7,188 tons to 5,402 tons whilst to Germany exports increased from 15,436 tons to 16,693 tons.

Central European isocyanate trade Jan-Oct 2024

TDI prices in Europe were relatively stable last year allowing an improvement of sales over 2023. This is despite the fact that demand for TDI was sluggish from the downstream polyurethane industries. The European market has been helped to some extent by tightness in the US market and continued logistical problems for supplying isocyanates from Asia.

TDI imports into Poland amounted to 62,889 tons in January to October 2024 against 58,106 tons in January to October 2023. Prices of TDI imported into Poland dropped from €2603.0 per ton last year to €1999.9 per ton. Hungary was the largest supplier in the first ten months in 2024, shipping 25,716 tons to Poland versus 23,934 tons in January to October 2023.

MDI imports into Poland totalled 142,335 tons in January to October 2024, up against 109,256 tons in January to October 2023. Average prices dropped from €2103.9 per ton to €1923.6 in January to October 2023.

Germany increased MDI shipments to Poland to 39,520 tons in the first ten months in 2024 against 29,708 tons in January to October 2023, whilst imports from Hungary amounted to 33,649 tons against 26,314 tons. Belgium increased shipments of MDI to 29,744 tons in last year from 19,253 tons in the same eight months

in 2023. Other suppliers included the Netherlands and South Korea.

Polish TDI Imports (unit-kilo tons)		
Country	Jan-Oct 24	Jan-Oct 23
Belgium	4.882	2.233
Germany	16.160	13.717
Hungary	25.716	23.934
Netherlands	4.882	4.238
Saudi Arabia	0.436	2.234
South Korea	6.357	7.562
Others	2.838	4.188
Total	62.889	58.106
Av € per ton	1999.9	2603.0

Polish MDI Imports (unit-kilo tons)			
Country	Jan-Oct 24	Jan-Oct 23	
Germany	39.520	29.708	
Netherlands	23.395	18.865	
Hungary	33.649	26.314	
Belgium	29.744	19.142	
South Korea	7.304	5.554	
Others	8.723	9.673	
Total	142.335	109.256	
Av € per ton	1923.6	2103.9	

Av € per ton	1923.6	21	03.9	
Czech MDI imports (unit-kilo tons)				
Jan-Oct 24 Jan-Oct 23				23
Total	34.	751	31.376	

MDI imports into the Czech Republic totalled 34,751 tons in January to October 2024 against 31,376 tons in the same period in 2023. Average prices dropped from €2224.0 per ton to €2080.4 per ton. The leading supplier in 2024 was Belgium which shipped 8,512 tons against 7,954 tons in January to October 2023. Imports from Hungary dropped from 9,076 tons to 7,388 tons.

European polyol market challenges

Downstream markets for polyether-polyols were severely affected in 2024 due to the macro-environment. The upholstered furniture industry was particularly affected, with many furniture manufacturers having to reduce production or even face the risk

of bankruptcy due to falling demand. Automotive production has declined due to supply chain disruptions and weak demand, further reducing demand for polyether polyols.

Av Price € per ton 2080.4 2224.0 Polyether polyol suppliers in Europe were forced to reduce production levels last year after cost pressures were faced from propylene oxide prices. The overall market is tight due to weak demand, especially in the automotive and upholstered furniture sectors, which have demonstrated a significant reduction in demand for polyether polyols.

Czech Polyol Imports (unit-kilo tons)			
	Jan-Oct 24 Jan-Oct 23		
Total	29.736	39.322	
Av € per ton	2310.1	2566.1	

Hungarian Polyol Imports (unit-kilo tons)		
Jan-Sep 24 Jan-Sep 23		
Total	27.179	36.184
Av € per ton	1869.5	2364.6

Polish Polyol Imports (unit-kilo tons)			
Country	Country Jan-Oct 24 Jan-Oct 23		
Belgium	19.110	15.678	
China	7.834	5.865	
France	4.207	4.634	
Germany	27.348	27.527	
Netherlands	28.609	25.287	
Romania	12.275	13.614	
South Korea	1.729	3.314	
Others	6.950	14.357	
Total	10.708	13.063	
Av € per ton	118.770	123.340	

Polish Polyol Exports			
Jan-Oct 24	Jan-Oct 23		
46.192	41.734		
2114.2	2279.3		
Polish Polyol Imports			
Jan-Oct 24 Jan-Oct 23			
118.770	123.340		
1809.3	2203.9		
	Jan-Oct 24 46.192 2114.2 blyol Impor Jan-Oct 24 118.770		

Czech polyol imports Jan-Oct 2024

Czech polyol imports amounted to 38,046 tons in the first ten months last year against 47,156 tons in the same period in 2023, with average prices dropping from €2460.1 per ton to €2306.2 per ton. Polyol prices in Europe continue to suffer from weak demand. The leading supplier to the Czech Republic last year was Belgium shipping 10,851 tons in the period January to October against 14,123 tons in 2023.

Hungarian polyol imports Jan-Sep 2024

Imports of polyols into Hungary dropped in the first nine months last year to 25,200 tons against 36,184 tons in the same period in 2023. Imports increased from 7,758 tons to 8,092 tons in January to September 2024. MOL's new plant at Tiszaujvaros once fully operational should impact on import volumes in 2025 as the more domestic customers switch to local supply. Relatively low domestic consumption means that MOL will have to export around 75% of its polyol production at full capacity. September export volumes exceeded a thousand tons for the first time, showing early signs of sales from the new plant.

Polish polyol trade Jan-Oct 2024

Polish polyol imports amounted to 118,770 tons in the first ten months in 2024 against 123,340 tons in the same period in 2023. The Netherlands supplied 28,6039 tons in January to October 2024 against 25,287 tons last year, whilst Germany supplied 27,348 tons against 27,527 tons. Polyol import prices into Poland dropped from €2203.9 per ton to €1809.3 per ton.

Exports of polyols from Poland in the first ten months in 2024 amounted to 46,192 tons against 41,734 tons in the same period in 2023. Destinations for deliveries were focused mostly on Europe, led by Italy taking 6,964 tons in the first ten months followed by Germany with 5,062 tons. Average export prices dropped from €2279.3 per ton to €2114.2 per ton.

Central European organic chemical trade

Hungarian maleic anhydride exports (unit-kilo tons)			
Country	Country Jan-Sep 24 Jan-Sep 23		
Austria	0.358	2.226	
Germany	2.372	1.016	
Italy	2.564	2.389	
Poland	5.224	2.107	
Slovenia	1.352	1.565	
Others	6.293	5.405	
Total	18.164	14.707	
Av € per ton	1181.5	1249.7	

Hungarian maleic anhydride exports Jan-Sep 2024

Hungary exported 18,164 tons of maleic anhydride in January to September against 14,707 tons in January to September 2023. Average prices dropped from €1249.7 per ton to €1181.5 per ton. Exports of maleic anhydride to Poland from Hungary increased from 2,107 tons in the first nine months in 2024 to 2,107 tons last year.

Hungarian organic chemical exports Jan-Sep 2024

Exports of organic chemicals from Hungary totalled 437,801 tons in the first nine months last year, up from 432,168 tons in the same period in 2023. The largest commodity in the organic chemical sector is TDI, accounting for 41% of Hungarian organic

chemical exports in January to September last year by volume and 33% by value. Overall, the value of organic chemical exports from Hungary amounted to €1.126 billion in the first nine months which was down from €1.260 billion in January to September 2023.

Hungarian aniline imports (unit-kilo tons)			
Country Jan-Sep 24 Jan-Sep 23			
Belgium	8.917	18.650	
China	0.000	11.067	
Czech Republic	61.675	46.347	
Total	70.616	78.095	
Av € per ton	1419.5	1449.9	

Imports of organic chemicals into Hungary amounted to 519,780 tons in the period January to September against 492,170 tons in 2023, with values dropping from €1.285 billion to €1.144 billion. The major organic chemical imports include methanol, toluene, aniline and acrylonitrile.

Hungarian aniline & acrylonitrile imports Jan-Sep 2024

Aniline imports into Hungary dropped from 78,095 tons in January to September 2023 to 70,616 tons January to September last year. Inward shipments from BorsodChem-MCHZ in the Czech Republic amounted to 61,575 tons against 46,347 tons in January to September 2023. Belgium supplied 8,917 tons against 18,650 tons in January to September 2023. Cost prices of aniline imports dropped from €1449.9 per ton to €1419.5 per ton.

Polish Organic Chemical Trade			
Exports	Jan-Oct 24	Jan-Oct 23	
Vol (kilo tons)	1,306.2	1,237.9	
Value (€ million)	1,081.4	988.6	
Imports	Jan-Oct 24	Jan-Oct 23	
Vol (kilo tons)	3,290.7	3,303.2	
Value (€ million)	2,285.8	2,223.5	

Acrylonitrile imports into Hungary dropped from 15,155 tons in
the first nine months in 2023 to 12,478 tons in the period January
to September 2024. Imports from the Netherlands increased
from 8,472 tons to 8,918 tons. Average prices for acrylonitrile
imports dropped from €2111.6 per ton to €1678.5 last year.

to 1.060 mil Polish Organic Chemical Imports tons in the

(unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
Acetic Acid	31.300	25.722	
Acetone	5.331	6.645	
Butadiene	84.330	81.385	
DINP/DOP	21.111	19.322	
Ethyl Acetate	14.276	17.722	
Isopropanol	10.595	9.798	
Maleic Anhydride	9.649	10.584	
Methanol	563.935	542.178	
Propylene	75.993	99.437	
VAM	17.828	15.787	

Polish organic chemical trade Jan-Oct 2024

Exports of organic chemicals from Poland increased by volume to 1.060 million tons in January to October 2024 to 1.008 million tons in the same period in 2023, whilst imports dropped from 2.656 million tons to 2.614 million tons.

Export values increased from \$803.5 million to \$861.6 million, whilst import values rose from \$1.748 million to \$1.817 million. Overall trade remains lower than before the Ukrainian war started but shows a relative improvement over 2023.

Methanol imports into Poland totalled 563,935 tons in January to October 2024 against 542,178 tons in the same period in 2023.

For other organic chemical imports Poland imported 31,300 tons of acetic acid in January to October against 25,722 tons in January to October 2023. The UK provided 13,671 tons in the

first ten months last year against 5,730 tons in the same period in 2023. The UK replaced the US as

the largest supplier in 2024. Acetic acid prices dropped to €637.8 per ton in the first ten months last year against €817.0 per ton last year. Ethyl acetate imports into Poland amounted to 14,276 tons in January to October 2024 against 17,722 tons in January to October 2023. Belgium provided the largest share of imports. VAM imports into Poland amounted to 17,828 tons versus 15,787 tons in January to October 2023.

Polish EO/PO Imports (unit-kilo tons)		
Product	Jan-Oct 24	Jan-Oct 23
DEG	23.762	28.520
Ethylene Glycol	46.062	97.946
Ethylene Oxide	16.574	19.356
Propylene Glycol	17.874	17.941
Propylene Oxide	5.770	0.312

Maleic anhydride imports into Poland amounted to 9,649 tons in January-October 2024, down from 10,584 tons in the previous year. Imports are currently sourced from Germany, Hungary and South Korea. Isopropanol imports into Poland amounted to 10,595 tons in January-October 2024, up from 9,788 tons in the previous year. Aside Germany, imports come from the Netherlands and South Africa.

Ethylene glycol imports into Poland dropped in the first ten months in 2023 from 97,946 tons to 46,062 tons in the same period last year. Belgium is the main supplier of glycols to the Polish market. DEG imports dropped to 23,762 tons against 28,520 tons.

Polish Organic Chemical Exports (unit-kilo tons)		
Product	Jan-Oct 24	Jan-Oct 23
Acetone	9.615	10.403
Ethylene Glycol	15.247	14.655
Formaldehyde	18.652	19.356
Glycerol	28.530	33.819
Methanol	162.783	232.820
Monochloroacetic Acid	27.666	31.092
N-Butyl Acetate	6.266	8.681
Propylene	12.316	2.849
Propylene Glycol	14.763	11.340

Ethylene oxide imports into Poland totalled 16,574 tons in January to October 2024 versus 19,356 tons in January to October 2023. Germany currently represents the main source of inward shipments.

Ethylene oxide consumption in Poland is expected to increase after the completion of PCC Exol's second line of the Ethoxylates II plant at Plock.

Regarding export activity in organic chemicals, Polish shipments of monochloroacetic acid (MCAA) amounted to 27,666 tons in the first ten months against 31,092 tons in the same period in 2023. MCAA production is undertaken by the PCC Group at Brzeg Dolny.

Czech Organic Chemical Trade			
Exports	Jan-Oct 24	Jan-Oct 23	
Value (€ million)	1,047.3	1,237.9	
Vol (kilo tons)	471.0	467.1	
Imports	Jan-Oct 24	Jan-Oct 23	
Value (€ million)	1,088.1	1,144.4	
Vol (kilo tons)	572.7	582.8	

Other organic chemical exports from Poland include acetone where shipments amounted to 9,615 tons in January-October 2024 versus 10,403 tons in January to October 2023. The main markets for Polish acetone exports included Italy, Germany, Romania and Lithuania. Propylene exports increased in 2024 due to the start-up of production at the Polimery Plant.

Czech Organic Chemical Imports (unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
Acetone	4.650	4.966	
DEG	1.834	1.184	
DINP	8.059	3.825	
2-EH	18.013	17.824	
Ethyl Acetate	2.769	2.849	
Ethylene Glycol	7.384	6.531	
Methanol	55.594	62.275	
N-Butanol	6.478	8.683	
Propylene Glycol	3.139	3.265	

Czech organic chemical trade Jan-Oct 2024

Czech organic chemical exports amounted in value to €1.047 million in the first ten months in 2024, whilst imports dropped from €944.9 million to €1.088 billion. Import volumes declined from 582,800 tons to 572,700 tons, whilst export volumes rose from 467,100 tons to 471,000 tons.

Czech imports of organic chemicals are led by methanol where volumes amounted to 55,594 tons in the first ten months last year against 62,275 tons in the same period in 2023.

Other products imported include oxo alcohols, both in butanols and 2-EH. Normal butanol imports amounted to 6,478 tons last year versus 8,683 tons whilst 2-EH imports increased from 17,824 tons to 18,013 tons. Oxygenated solvent imports

include acetone and ethyl acetate, amounting to 4,650 tons and 4,966 tons in the first ten months last year respectively.

Central European methanol markets

Czech Methanol Imports (unit-kilo tons)		
Country	Jan-Oct 24	Jan-Oct 23
Germany	5.336	4.759
Estonia	5.173	0.000
Russia	0.000	6.237
Poland	40.666	45.133
Spain	2.272	0.000
Others	4.322	5.074
Total	55.594	62.275
Av € per ton	396.6	378.9

Czech Methanol Imports (unit-kilo tons)		
Country	Jan-Oct 24	Jan-Oct 23
Germany	5.336	4.759
Estonia	5.173	0.000
Russia	0.000	6.237
Poland	40.666	45.133
Spain	2.272	0.000
Others	4.322	5.074
Total	55.594	62.275
Av € per ton	396.6	378.9

Hungarian methanol imports (unit-kilo tons)		
Country	Jan-Sep 24	Jan-Sep 23
Germany	45.341	20.511
Netherlands	9.803	18.978
Poland	1.256	10.242
Slovenia	14.486	3.828
Slovakia	0.000	4.591
Others	1.652	3.500
Total	72.787	63.596
Av € per ton	433.4	461.1

Polish Methanol Imports (unit-kilo tons)		
Country	Jan-Oct 24	Jan-Oct 23
Azerbaijan	5.000	4.981
Belgium	135.198	50.133
Estonia	5.920	0.000
Germany	73.564	45.779
Netherlands	59.166	21.210
Norway	45.438	92.687
Russia	0.000	188.185
US	13.577	22.374
Trinidad	74.946	39.512
Venezuela	112.992	20.765
Others	18.104	2.323
Total	544.393	487.949
€ price per ton	318.6	313.1

Poland Methanol Exports (unit-kilo tons)		
Country	Jan-Oct 24	Jan-Oct 23
Austria	1.546	30.647
Czech	28.451	46.497
Germany	77.376	68.468
Romania	0.000	18.927
Slovakia	21.025	35.388
Ukraine	19.363	20.474
Hungary	0.264	12.285
Others	0.647	0.187
Total	148.671	232.874
Av € per ton	385.6	357.0

Czech methanol imports Jan-Oct 2024

Czech imports of methanol amounted to 55,594 tons in the first ten months in 2024 against 62,275 tons in the same Prices per ton for methanol imports period in 2023. increased from €378.9 per ton to €396.6 per ton.

Poland supplied 40,666 tons to the Czech Republic in the first ten months against 45,133 tons in the same period in 2023, whilst the second largest source of supply came from Germany supplying 5,173 tons.

Hungarian methanol imports Jan-Sep 2024

Methanol imports into Hungary in January to September increased to 72,787 tons against 63,596 tons in January to September 2023. Imports from Germany increased from 20,511 tons to 45,341 tons, replacing sources from Poland and Slovakia last year. Imports from Slovenia amounted to 14,486 tons in the first nine months last year, against 3,828 tons in the same period in 2023. Average prices of methanol imports into Hungary amounted to €433.4 per ton against €461.1 per ton in 2023.

Polish methanol trade Jan-Oct 2024

Polish imports of methanol amounted to 544,393 tons in the first ten months in 2024 against 487,949 tons in January to October 2023.

Average prices amounted to €318.6 per ton against €313.1 per ton last year. Poland has been developing alternative sources to Russian methanol before the full embargo took full effect in June.

Belgium was the largest supplier of methanol to Poland in the first ten months in 2024, shipping 135,198 tons against 50,133 tons in the preceding year. Venezuela follows Belgium closely having supplied 112,992 tons in the period January to October 2024 against 20,765 tons in the same period in 2023.

Imports from Trinidad into Poland had been lower for the first six or seven months in 2024 but then increased and amounted to 74,946 tons in the first ten months. Imports from Norway dropped in 2024, from 92,687 tons in 2023 to 45,438 tons.

Exports of methanol from Poland amounted to 148,671 tons in January to June declining from 232,874 tons in January to October 2023.

The largest destination for Polish exports was Germany which took 77,376 tons in the first ten months in 2024 against 68,468 tons in the same period in 2023. Ukraine imported 19,363 tons of methanol from Poland in the first ten months 2024 against 20,474 tons in 2023. Polish methanol export prices increased from €357.0 per ton to €385.6 per ton. Shipments from Poland to Austria fell in 2024, whilst shipments to Romania stopped as consumers switched to other sources.

RUSSIA

Russian chemical production Jan-Oct 2024

The chemical industry in Russia performed relatively well in 2024, and at least for now seems largely detached from the deepening problems facing the Russian economy. Producers oriented towards

Russian Chemical Production			
(unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
Ethylene	3831.9	3636.2	
Propylene	2160.4	2121.5	
Benzene	1134.2	1051.7	
Toluene	320.8	303.4	
Xylenes	367.0	354.2	
Orthoxylene	104.0	100.0	
Paraxylene	142.7	149.9	
Styrene	579.3	554.8	
Ethylbenzene	681.0	617.8	
Methanol	3163.6	3243.9	
Isopropanol	59.5	55.0	
Ethylene Glycol	343.7	123.2	
Butanols	109.4	123.2	
Phenol	182.2	208.8	
Acetic Acid	224.1	159.8	
Phthalic Anhydride	77.2	73.8	

export activity have benefited from the depreciating currency, but domestic markets are expected to come under pressure this year. In theory a ceasefire could relieve some pressure, even if only temporary.

For the first ten months in 2024 Russian ethylene production rose by nearly 200,000 tons to 3.832 million tons whilst propylene production dropped slightly from 2.122 million tons to 2.160 million tons. Most petrochemicals saw higher production in the first ten months in 2024 but increases started to stagnate in the second half of the year.

Regionally the Volga region accounts for the largest share of petrochemical production in Russia. Taken in the context of the war most plants in the Volga region are vulnerable to Ukrainian drones, although it is refineries which represent the main target. In the first ten months last year 49.0% of Russian ethylene production took place in the Volga region, including plants Nizhnekamskneftekhim, Kazanorgsintez, Gazprom neftekhim Salavat, Ufaorgsintez and SIBUR-Kstovo. Those same plants accounted for 37.1% of propylene production which is lower

than the Ural region where the largest plant is located.

Of the major chemical products, only methanol has faced lower volumes which can be attributed to lower export activity. This meant that production dropped from 3.244 million tons to 3.167 million tons. In the field of aromatics benzene production increased from 1.052 million tons in the first ten months last year to 1.134 million tons in January to October 2024. Ethylbenzene production rose from 617,800

Polish Fertiliser Imports from Russia			
	Jan-Oct 24 Jan-Oct 23		
€ million	340.8	165.4	
Ktons	1025.0	456.0	

tons to 681,000 tons, whilst toluene increased from 303,400 tons to 320,800 tons.

Contradiction between Russian methanol and fertilisers

Whilst Russian methanol is sanctioned from trading in Europe fertilisers remain mostly exempt and this has provided a way of utilising surplus natural gas, using it to produce Fertilisers that enter the European market at attractive prices. Not only gas but Russian producers are not faced CO2 emission fees, which burden producers in the EU. Whilst methanol exports to Europe ceased after May 2023 fertiliser exports have risen sharply in the past two years as local European producers have been unable to compete against cheaper Russian gas. Poland has

been particularly affected, with values and volumes doubling in 2024.

Russian Polymer Production (unit-kilo tons)			
Product	Jan-Oct 24	Jan-Oct 23	
Plastics	9096.4	8854.4	
PE	2864.478	2624.397	
Styrene Polymers	504.554	471.904	
PVC	773.007	799.078	
Propylene Polymers	1740.562	1786.320	
Polyamide	112.484	110.077	
Synthetic Rubber	1168.760	1151.972	

Russian polymer production Jan-Oct 2024

Russian production of polyethylene increased slightly to 2.865 million tons against 2.624 million tons in January to October 2023. Polypropylene production dropped from 1.786 million tons to 1.740 million tons, whilst styrene polymer production rose from 385,728 tons to 401,952 tons. PVC production dropped from 799,078 tons in January to October 2023 to 739,411 tons in the same period in 2024. The production of polyamide in Russia showed a minor increase to 112,484 tons

from 110,077 tons. Russian production of synthetic rubbers increased slightly to 1.169 million tons in January to October 2024 compared to 1.152 million tons in 2023.

Russian Monomers

Russian Ethylene Production (unit-kilo tons)			
Region	Jan-Oct 24	Jan-Oct 23	
North Caucasus Federal District	282.024	237.499	
Volga Federal District	1831.125	1697.157	
Ural federal district	1310.697	1306.752	
Siberian Federal District	408.089	384.281	
Total	3831.935	3625.689	

Russian Propylene Production (unit-kilo tons)			
Region	Jan-Oct 24	Jan-Oct 23	
North Caucasus Federal District	115.984	94.623	
Volga Federal District	792.943	747.436	
Ural federal district	805.351	884.495	
Siberian Federal District	417.059	381.758	
Total	2131.337	2108.312	

Russian ethylene production Jan-Oct 2024

Russian ethylene production totalled 3.834 million tons in the first ten months tons in 2024 against 3.626 million tons in the same period in 2023.

ZapSibNeftekhim at Tobolsk produced 1.311 million tons in January to October 2024, up from 1.307 million tons from January to October 2023. Stavrolen increased production from 189,815 tons in the first ten months last year to 219,464 tons in the same period in 2024.

Russian propylene production Jan-Oct 2024

Russian propylene production totalled 2.131 million tons in the first ten months tons in 2024 against 2.108 million tons in the same period in 2023. ZapSibNeftekhim at Tobolsk produced 805,351 tons

against 884,495 tons in the same period in 2023. The Volga-Urals region increased from a total of 747,436 tons in January to October 2024 against 792,243 tons in January to October 2023.

Russian Propylene Domestic Sales (unit-kilo tons)			
Producer Jan-Oct 24 Jan-Oct 23			
Angarsk Polymer Plant	43.962	21.935	
SIBUR-Kstovo	143.560	184.658	
Lukoil-NNOS	153.090	129.106	
Total	344.126	356.035	

Russian propylene domestic sales Jan-Oct 2024

Russian sales of propylene on the domestic merchant market amounted to 344,126 tons in the first ten months in 2024 against 356,035 tons in January to October 2023.

Russian Major Propylene Domestic Buyers (unit-kilo tons)			
Consumer	Jan-Oct 24	Jan-Oct 23	
Saratovorgsintez	130.090	138.416	
Volzhskiy Orgsintez	10.156	9.659	
Akrilat	23.451	20.036	
SIBUR-Khimprom	48.233	31.824	
Omsk-Kaucuk	17.381	5.523	
Tomskneftekhim	10.949	2.248	
ZapSibNeftekhim	69.719	89.978	
Moscow Refinery	1.460	2.593	
Nizhnekamskneftekhim	11.962	1.577	
Ufaorgsintez	6.825	10.711	
Kazanorgsintez	3.347	3.477	
Khimprom Kemerovo	4.475	6.089	
Plant of Synthetic Alcohol	5.996	4.049	
Total	344.126	356.035	

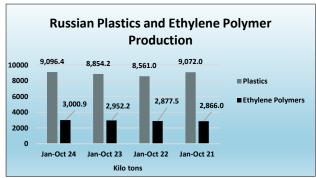
The largest propylene supplier to the domestic market was SIBUR-Kstovo, shipping 153,090 tons against 129,106 tons in January to October 2023.

Lukoil-NNOS reduced propylene sales from 184,658 tons last year from 143,560 tons in 2023, after production was disrupted by Ukrainian drone strikes on the Kstovo refinery in January 2024.

ZapSibNeftekhim purchased 69,719 tons of propylene in the first ten months in 2024 against 89,798 tons in the same period in 2023, whilst Saratovorgsintez reduced purchases from 138,416 tons to 130,090 tons. ZapSibNeftekhim needed to buy propylene monomer in order to support

production at Tobolsk which is processed into polypropylene. Saratovorgsintez uses propylene for the production of acrylonitrile.

SIBUR-Khimprom at Perm increased purchases from 31,824 tons to 48,233 tons whilst Omsk Kaucuk increased purchases from 5,523 tons to 17,381 tons. SIBUR-Khimprom uses propylene for the production of oxo alcohols. The increase in propylene purchases by Omsk Kaucuk was required to provide feedstock for the production of isopropanol. The other isopropanol producer in Russia is located at Orsk, where in addition to propylene monomer, propane-propylene fractions are used in the production process.



Russian Ethylene Polymer Production by Region (unit-kilo tons)			
Region	Jan-Oct 24	Jan-Oct 23	
Central Federal District	107.490	119.059	
Northwestern Federal District	33.037	33.425	
Southern Federal District	33.626	28.309	
North Caucasus Federal District	259.378	219.802	
Volga Federal District	936.254	930.396	
Ural federal district	1335.586	1325.961	
Siberian Federal District	295.249	295.065	
Far East	0.247	0.146	
Total	3000.620	2952.163	

Russian bulk polymers

Russian plastics production Jan-Oct 2024

Russian bulk plastics production amounted to 9.096 million tons in January to October 2024 against 8.854 million tons in the same period in 2023 and against 8.561 million tons in 2022.

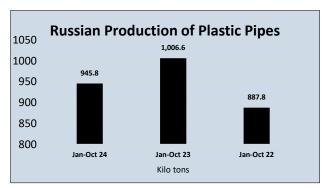
Production of ethylene polymers amounted to 3.001 million tons in the first ten months in 2024, down from 2.952 million tons in the same period in 2023. ZapSibNeftekhim is the largest Russian producer, increasing production of polyethylene from 1.326 million tons to 1.336 million tons in January to October 2024, nearly all of which comprised main polyethylene grades HDPE and LLDPE.

Regional production of ethylene polymers Jan-Oct 2024

The largest plant for the production of ethylene polymers is ZapSibNeftekhim at Tobolsk, located in the Ural Federal District. Production totalled 784,800 tons in the first half of 2024 against 782,500 tons in the same period in 2023.

The second largest region in Russia is the Volga Federal District where production fell from 620,700 tons last year to 546,300 tons in January to October 2024. The Volga district includes producers from Bashkortostan including Gazprom neftekhim Salavat and Ufaorgsintez, and from Nizhnekamskneftekhim and Kazanorgsintez. The two Tatar plants produced a total of 801,500 tons of plastics in primary forms in the first half in 2024, which is 7.6% lower than in the same period in 2023.

Nizhnekamskneftekhim is close to start-up of its new EP-600 cracker which should lead to increased Russian polyethylene production in 2025. One of the tasks of the new EP-600 cracker is to supply ethylene to Kazanorgsintez by pipeline which is currently in the process of increasing ethylene polymer capacity by 20% up to 660,000 tpa. The current production capacities of Kazanorgsintez consist of 654,000 tpa of ethylene, 540,000 tpa of HDPE, including bimodal polyethylene (type PE-100), 230,000



tpa of LDPE, including metallocene linear low-density polyethylene (m-LDPE), as well as medium-density polyethylene (LDPE).

Domestic polyethylene market driven by pipe demand

The pipe market has been the main driver of Russian polyethylene consumption in the past two years but the economic slowdown in the second half of 2024 has impacted on polyethylene sales volumes. Consumption of polyethylene in pipe manufacture increased by

3.6% in the first half of 2024 which was down from 8% in the same period in 2023. This falling trend carried on into the second half of the year.

Production of pipes based on thermoplastics dropped from 795,600 tons in the first ten months last year to 756,100 tons in 2024. The third quarter has seen a slowdown due in part to completed projects, and also due to high interest rates which is preventing some programmes from being started. In 2023

fourteen new production facilities were commissioned or modernised which was necessary for the growth from the pipe boom in 2022-2023.

Russian polyethylene trade Jan-Oct 2024

Russian polyethylene exports to China increased from 238,651 tons in January to October 2023 to

Chinese Imports of Polyethylene from Russia			
	Jan-Oct 24 Jan-Oct 23		
Kilo tons	283.052	238.651	
\$ million	259.581	209.628	
Av \$ per ton	934.4	858.8	

283,052 tons in 2024, with both HDPE and LDPE showing rises. Average prices for Russian polyethylene exports to China rose from \$858.8 per ton to \$934.4 per ton last year.

Chinese Exports of Polyethylene to Russia			
Jan-Oct 24 Jan-Oct 23			
Kilo tons	90.250	86.176	
\$ million	137.941	145.825	
Av \$ per ton	1528.4	1692.1	

Inward shipments of polyethylene from China into Russia amounted to 90,250 tons in the first ten months against 86,176 tons in the same period in 2023. Average prices fell in 2024 to \$1528.4 per ton from \$1692.1 in the same period in 2023.

South Korean Polyethylene Exports to Russia			
	Jan-Oct 24 Jan-Oct 23		
Ktons	98.052	74.339	
\$ million	124.398	98.592	
\$ per ton	1268.7	1326.3	

Imports of polyethylene shipments into Russia from South Korea exceeded Chinese volumes in the first ten months in 2024, amounting to 98,052 tons against 74,339 tons in January to October 2023. Average prices declined from \$1326.3 per ton to \$1268.7 per ton.

Russian Propylene Polymers Production by Region (unit-kilo tons)			
Region	Jan-Oct 24	Jan-Oct 23	
Central Federal District	128.758	112.982	
Northwestern Federal District	0.456	0.810	
Southern Federal District	10.686	10.724	
North Caucasus Federal District	109.784	94.316	
Volga Federal District	359.178	344.081	
Ural federal district	870.270	945.064	
Siberian Federal District	285.251	285.335	
Total	1764.384	1786.320	

Russian Chinese polypropylene production Jan-Oct 2024

Russian production of propylene polymers totalled 1.764 million tons in the first ten months in Russia against 1.786 million tons in the same period in 2023. ZapSibNeftekhim reduced production from 945,064 tons to 870,270 tons in January to October 2024, whilst Stavrolen at Budyennovsk increased production from 94,316 tons to 109,784 tons.

 Chinese Imports of PP from Russia

 Jan-Oct 24
 Jan-Oct 23

 \$ million
 57.412
 107.774

 Ktons
 68.251
 137.070

 Av \$ per ton
 841.2
 817.7

The Moscow refinery increased polypropylene production from 112,982 tons to 128,758 tons. The Volga region, including Nizhnekamskneftekhim and Ufaorgsintez, produced 359,178 tons against 344,081 tons. The Siberian region, which includes Tomskneftekhim and Polyom at Omsk, reduced

production slightly to 285,251 tons from 285,335 tons.

Chinese Exports of PP to Russia				
	Jan-Oct 24 Jan-Oct 23 Jan-Oct 2			
\$ million	70.793	93.139	49.446	
Ktons	30.084	33.347	22.613	
Av \$ per ton	2353.2	2793.0	2186.6	

Russian polypropylene trade Jan-Oct 2024

Both Russian exports of propylene polymers to China and imports from China into Russia dropped in the first ten months in 2024. Exports of polypropylene from Russia to China dropped from 137,070 tons in the first ten months in 2023 to 68,251 tons in the same period in 2024.

Revenues dropped from \$107.774 million to \$68.251 million. At the same time imports from China

	South Korean Exports of Copolymers				
		Jan-Oct 24	Jan-Oct 23		
	Ktons	27.595	14.108		
	\$ million	38.300	17.478		
	Av \$ per ton	1387.9	1238.9		

dropped from 33,347 tons in the first ten months in 2023 to 30,084 tons in 2024, whilst costs dropped from \$93.139 million to \$70.793 million.

Exports of propylene copolymers to Russia from South Korea amounted to 27,595 tons in the first ten months in 2024

against 14,108 tons in the same period in 2023. Prices for Korean polypropylene increased from \$1238.9 per ton to \$1387.9 per ton.

Russian PTA-PET

Russian PX-PTA-PET production Jan-Oct 2024

Russian paraxylene production amounted to 210,073 tons in the first ten months in 2024 against

Russian Paraxylene Production (unit-kilo tons)			
Region	Jan-Oct 24	Jan-Oct 23	
Kirishinefteorgsintez	44.168	35.000	
Ufaneftekhim	105.647	103.714	
Gazprom Neft	60.258	52.315	
Total	210.073	191.028	

191,028 tons in the same period in 2023. Gazprom Neft at Omsk increased production from 52,315 tons to 60,258 tons whilst Ufaneftekhim increased production from 103,714 tons to 105,647 tons.

PTA production at Polief amounted to 299,344 tons in the first ten months in 2024, combined with 180,857 tons of PET at Blagoveshchensk in Bashkortostan. Polief is currently Russia's largest producer of PET, slightly surpassing Ekopet

at Kaliningrad. Ekopet produced 180,354 tons of PET in the first ten months in 2024, whilst the combined plants of Senezh and SIBUR-PETF produced 159,803 tons.

Russ	Russian PTA Imports from China				
	Jan-Oct 24 Jan-Oct 23 Jan-Oct 2				
Ktons	239.732	202.638	196.086		
€ mil	180.052	158.936	170.727		
Av \$ per ton	751.055	784.335	870.674		

Russian PTA imports Jan-Oct 2024

Russian PTA imports from China amounted to 239,732 tons in the first ten months in 2024 versus 202,638 tons in the same period in 2023. Nearly all of the PTA imports from China were shipped to Ekopet at Kaliningrad by rail. PTA import prices averaged \$751.055 in the first ten months in 2024,

down from \$784.335 in 2023. Values of PTA imports amounted to \$180.052 million against \$158.936 million in 2023 and \$170.727 million in the first ten months in 2023.

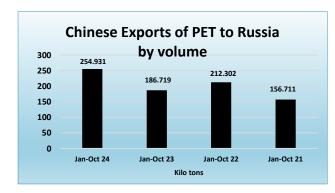
Tatneft's PTA project planned for Nizhnekamsk is intended to resolve a large part of the import dependency on China, but this new plant is not expected to be completed for several years. In the meantime, Chinese PTA capacity continues to grow and the three major projects under construction

grow and the	three ma	ajor proj	ects	under col	nstruction
at present	could in	crease	the	country's	capacity
increases by	y 10.6 mi	llion tpa	by tl	he end of	2026.

Russian PET Imports from China			
	Jan-Oct 23	Jan-Oct 22	
Ktons	254.931	186.719	212.302
€ mil	227.369	172.098	237.105
Av \$ per ton	891.9	921.7	1116.8

Chinese shipments of PET to Russia amounted to 254,931 tons in the first ten months in 2024 against 186,719 tons in the same period in 2023. Costs of Chinese PET import shipments into Russia rose from

\$172.098 million to \$227.369 million, which meant that average prices fell from \$921.7 per ton to \$891.9 per ton.



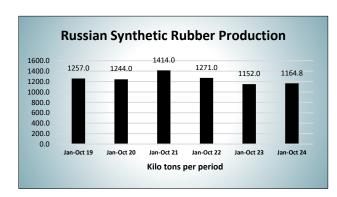
Restrictions to apply to Russian PET packaging from September 2025

From 1 September 2025, three types of plastic containers made of PET packaging will be banned in Russia. PET bottles for the food industry (except for blue, white, green and brown bottles, as well as colourless), multilayer PET bottles and PET packaging with a PVC label (except for shrink bottles) will be outlawed.

Until now producers have been allowed to produce plastic bottles of only a few colours:

transparent, blue, green and brown, as well as white for dairy products. The Ministry of Industry and Trade believes that the measure will help reduce containers that cannot be disposed of or recycled, accelerate the transition to environmentally friendly packaging and reduce the impact on the environment. At this stage it is not clear how much impact these changes will have upon total PET consumption in Russia.

Synthetic rubber



Russian synthetic rubber production and market Jan-Oct 2024

Synthetic rubber production in Russia amounted to 1.165 million tons in January to October 2024 against 1.152 million tons in the same period in 2023. Production tended to stabilise in 2024 but is still much lower than prior to the full-scale Russian invasion of Ukraine. 2021 was the record year for Russian production, totalling 1.414 million tons in the corresponding ten-month period.

Tyre production in Russia required 222,500 tons of synthetic and natural rubber in the first ten months in 2024 against 194,900 tons last year but still lower than the 239,600 tons in the first ten months in 2022. Manufacturers have never fully recovered from the downturn associated with production restrictions due to the COVID-19 pandemic which was then followed in 2022 with the exodus of Western companies from the market.

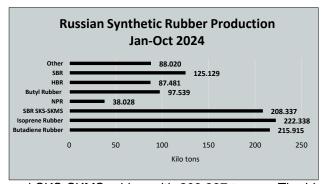
Russian Synthetic Rubber Production by Region (unit-kilo tons)			
Region	Jan-Oct 24	Jan-Oct 23	
Central Federal District	245.648	231.142	
Northwestern Federal District	1.428	0.574	
Volga Federal District	827.514	831.017	
Siberian Federal District	89.870	89.239	
Total	1164.460	1151.972	

Regional production of synthetic rubber

In the first ten months last year the Volga region accounted for 827,514 tons of synthetic rubber against 831,017 tons in the same period in 2023.

This region provides the main basis for synthetic rubber production in Russia and includes Nizhnekamskneftekhim, Togliattikaucuk, and Sterlitamak Petrochemical Plant. The region

accounts for around 70% of total Russian production.



Voronezhsintezkaucuk is the main producer of synthetic rubber in the Central Federal District of Russia, where volumes amounted to 245,648 tons in the first ten months against 231,142 tons in the same period last year. This region accounts for around 20% of total Russian production.

Isoprene rubber production amounted to 222,338 tons in the first ten months last year followed by butadiene rubber with 215,955 tons

and SKS-SKMS rubber with 208,337 tons. The highest value rubber sold by Russia is halogenated butyl rubber where production totalled 87,481 tons in the first ten months last year.

Voronezhsintezkaucuk-expansion of thermoplastic elastomer plant

Voronezhsintezkaucuk plans to increase its capacity for the production of divinyl-styrene thermoplastic elastomers (TEP), or SBS, from its first line of 35,000 tpa to 80,000 tpa. Including the second line which was introduced in 2020, total capacity should rise to 130,000 tpa. The cost of reconstruction of the first line which started nearly ten years ago has been estimated at 11 billion roubles. Preparatory work for the project is now underway, and construction could start in the first half of 2025.

TPEs are widely used in road construction, extending the service life of roads, whilst they are also used in the production of consumer goods, in medical devices and in sports equipment. In 2023, 31,000 km of roads were repaired in Russia which included the laying of 243 million square metres of asphalt concrete. More than half of new and renovated roads contain SIBUR's SBS polymers. In theory, the use of SBS reduces the risks of rutting and cracking and reduces the need to repair roads.

Methanol

Russian Methanol Production (unit-kilo tons)			
Region	Jan-Oct 24	Jan-Oct 23	
Central Federal District	1021.687	1060.702	
Northwestern Federal District	89.291	74.522	
North Caucasus Federal District	101.072	94.046	
Volga Federal District	1275.839	1367.583	
Ural federal district	55.727	54.994	
Siberian Federal District	539.031	550.692	
Total	3082.645	3202.538	

Russian methanol production Jan-Oct 2024

Russia produced 3.083 million tons of methanol in the first ten months in 2024 against 3.203 million tons in the same period in 2023. The largest producer Shchekinoazot decreased production from 1.060 million tons to 1.022 million tons. The Volga region dropped production from 1.368 million tons to 1.276 million tons, whilst the Siberian Federal District (including Gazprom Methanol and Angarsk Petrochemical) reduced production from 550,692 tons to 539,031 tons.

Russian Methanol Exports by Producer (unit-kilo tons)			
Producer	Jan-Oct 24	Jan-Oct 23	
Azot Nevinnomyssk	11.638	8.830	
Azot Novomoskovsk	48.035	53.400	
Metafrax Chemicals	190.791	309.927	
Gazprom Methanol	220.396	307.414	
Tomet	106.562	106.590	
Shchekinoazot	421.216	516.894	
Total	998.639	1303.056	

Regarding some of the smaller producers, Azot at Nevinnomyssk increased production from 94,046 tons to 101,072 tons which correlated with the increase in acetic acid production. Other plants where methanol is consumed internally include Akron, Angarsk Petrochemical and Novatek. Akron uses methanol for formaldehyde production, Angarsk Petrochemical uses methanol for MTBE and Novatek uses methanol for gas processing.

Russian methanol exports Jan-Oct 2024

Total 998.639 1303.056 Russian methanol exports amounted to 998,639 tons in January to October 2024 versus 1303,056 tons in the same period in 2023. Shchekinoazot reduced exports from 516,894 tons to 421,216 tons in the first ten in 2024 whilst Metafrax Chemicals reduced shipments from 309,927 tons to 190,791 tons. Tomet exported 106,562 tons versus 106,590 tons in January to October 2023. Gazprom Methanol reduced exports to 220,396 tons from 307,414 tons.

Russian Methanol Exports to China (unit-kilo tons)			
Exporter	Jan-Oct 24	Jan-Oct 23	
Metafrax Chemicals	141.39	179.996	
Gazprom Methanol	220.205	305.525	
Tomet	62.149	79.767	
Shchekinoazot	227.011	100.735	
Total	669.215	666.023	

Azot at Novomoskovsk exported 48,035 tons in January to October shipped mostly through the Temyruk and Kavkaz ports to Turkey. However, shipments though the Kavkaz port stopped in the latter part of the year due to drone damage and the prospect of further attacks.

Russian Methanol Exports by Destination (unit-kilo tons)						
Country Jan-Oct 24 Jan-Oct 23						
Belarus	101.118	115.651				
China	669.215	666.023				
Finland	0.000	106.441				
Germany	0.000	5.265				
Georgia	11.985	0.000				
Kazakhstan	48.245	38.163				
Latvia	0.000	1.230				
Lithuania	0.000	9.019				
Netherlands	0.000	20.814				
Poland	0.000	126.002				
UAE	13.022	7.472				
Turkey	173.345	206.975				
Others	0.129	0.000				
Total	998.599	1303.052				

Exports to China amounted to 669,215 tons in the first ten months in 2024 against 666,023 tons in the same period in 2023. Volumes to Turkey dropped from 206,975 tons to 173,345 tons, whilst exports to Belarus dropped from 115,651 tons to 101,118 tons.

Although China has replaced Finland as Russia's main export destination for methanol exports, most of the Russian methanol plants are located in the western parts of the country which means that the freight distances are much larger and costlier than to the EU markets.

Despite the geographical factors Shchekinoazot increased exports to China in the first ten months in 2024 to 227,011 tons against 100,735 tons in the same period last year. This meant that Gazprom Methanol dropped to the second largest Russian supplier, shipping 220,205 tons in the first ten months which was reduced from 305,525 tons in the first ten months in 2023. Metafrax

Chemicals reduced exports from 179,996 tons to 141,390 tons whilst Tomet increased shipments from 79,767 tons to 62,149 tons.

According to Chinese statistics imports of methanol from Russia totalled 645,317 tons in the first ten months in 2024 against 672,289 tons in the same period in 2023, with costs rising from \$177.150 million to \$192.534 million.

Russian Methanol Domestic Sales (unit-kilo tons)			
Producer	Jan-Oct 24	Jan-Oct 23	
Azot Nevinnomyssk	6.661	5.934	
Azot Novomoskovsk	22.219	9.287	
Metafrax Chemicals	410.946	394.964	
Gazprom Methanol	264.396	240.815	
Tomet	212.718	243.337	
Shchekinoazot	336.693	327.124	
Ammoni (Mendeleevsk)	27.021	21.749	
Total	1280.654	1243.210	

Russian methanol domestic sales, Jan-Oct 2024

Domestic merchant sales of methanol increased slightly in the first ten months in 2024 to 1.281 million tons, and now domestic merchant sales exceed exports. Producers have been forced to look at the domestic market for new market outlets.

Metafrax Chemicals increased domestic merchant sales to 410,946 tons in January to October 2024 against 394,964 tons in 2023, whilst Gazprom Methanol increased domestic merchant sales to

264,396 tons against 240,815 tons. Last year Metafrax Chemicals became part of the Roskhim state holding group.

Shchekinoazot increased domestic merchant sales to 336,693 tons in 2024 against 327,124 tons in January to October 2023. At present Shchekinoazot is focused on completing the construction of new facilities for ammonia (525,000 tpa) and urea (700,000 tpa). Whilst the EU has not sanctioned Russian fertiliser trade, it has sanctioned engineering and technology areas of business excluding Western contractors from projects. As a result, Shchekinoazot has been using the Chinese company CNCEC to construct the ammonia and urea plants, in addition to providing the equipment. These new facilities are expected to be operational by early 2025.

Nakhodka methanol project

By mid-December almost 60,000 cubic metres of concrete had been poured into the foundations of Nakhodka Mineral Fertilizer Plant, which is focusing initially on the methanol project. Eight columns for the methanol synthesis unit arrived in several deliveries at the port of Nakhodka in October and the eighth piece of equipment had been installed at the site by 19 November. The first of the eight columns was installed on 23 October. Around 6,000 people are currently working on the project which is scheduled to be completed and working at full capacity by 2027. Most of the contractors are local businesses. The methanol plant is being designed with a capacity of 1.8 million tpa, most of which is intended for export to China. The second stage of the project for Nakhodka Mineral Fertilizer Plant (NFP) involves the construction of a urea plant with a capacity of 3.0 million tpa.



In November the NFP finishes construction of the modern wastewater treatment facilities, which will allow the plant to minimise its impact on the sea bay. All wastewaters will be discharged 550 metres away from the shore as the deepwater discharge technology is considered to be one of the most ecofriendly and cut-edge technologies available.

The construction of the new plant is located next to Gazprom's pipeline system, which stretches from the gas fields on Sakhalin to the port of Kozmino.

NFP has signed a twenty-year contract with Gazprom for the supply of natural gas in the amount of up to 3.15 billion cubic metres per annum to serve a methanol plant. Due to the seismic instability of the region, it was necessary to create a solid structure is an important part of the foundation. Also, the foundation will be structured to withstand the load from heavy plant equipment up to 400 tons.

Organic chemicals

Russian butanol production Jan-Oct 2024

Russian normal butanol production dropped from 123,200 tons in January to October 2023 to 116,393

Russian N-Butanol Production (unit-kilo tons)			
Region	Jan-Oct 24	Jan-Oct 23	
North Caucasus Federal District	13.319	15.580	
Volga Federal District	80.217	85.728	
Siberian Federal District	22.857	21.892	
Total	116.393	123.200	

.5,200 tons in January to October 2025 to 110,595
tons in the same period in 2024. The Volga
region, which includes SIBUR-Khimprom,
reduced production from 85,728 tons in in the first
ten months in 2023 to 80,217 tons in the same
period in 2024

Russian Acetone Production (unit-kilo tons)					
Producer Jan-Oct 24 Jan-Oct 23					
Ufaorgsintez	27.719	28.885			
Kazanorgsintez	39.195	46.531			
Novokuibyshevsk Petrochemical	17.498	24.895			
Omsk Kaucuk	41.246	30.322			
Total	125.658	130.633			

Russian solvent production Jan-Oct 2024

Russian acetone production dropped from 130,633 tons in the first ten months last year to 125,658 tons in 2024. Omsk Kaucuk produced 41,246 tons of acetone against 30,322 tons in the previous year whilst Kazanorgsintez reduced production from 46,531 tons to 39,195 tons. The other two producers Ufaorgsintez and Novokuibyshevsk Petrochemical Combine both increased production.

Russian Acetic Acid Production (unit-kilo tons)		
Producer	Jan-Oct 24	Jan-Oct 23
Azot Nevinnomyssk	174.359	129.007
Others	60.355	32.062
Total	234.714	161.069

Russian acetic acid production amounted to 234,714 tons in January to October 2024 against 161,069 tons in the same period in 2023. The largest producer in Russia, Azot at Nevinnomyssk, increased production from 129,007 tons to 174,359 tons. Aside using acetic acid for the production of butyl acetate and methyl

acetate Azot supplies merchant acetic to the Russian domestic market. The two largest customers include Polief which purchases acetic acid for PTA and Stavrolen which uses acetic acid in the production of vinyl acetate monomer (VAM).

Stavrolen produced 37,601 tons of VAM in the first ten months last year from the country total of 43,783 tons. VAM is exported from Stavrolen in quantities of around 2,000 tons per month, most of which goes to Turkey.

Russian Isopropanol Production (unit-kilo tons)				
Producer Jan-Oct 24 Jan-Oct 2				
Plant of Synthetic Alcohol	26.580	21.786		
Omsk Kaucuk	29.702	27.695		
Total	56.282	49.481		

Isopropanol production in Russia amounted to 49,481 tons in January to October 2024 against 56,282 tons in the same period in 2023. Omsk Kaucuk increased production from 27,695 tons to 29,702 tons whilst the Plant at Synthetic Alcohol at Orsk increased production from 21,786 tons to

26,580 tons. Omsk Kaucuk only started isopropanol production in 2020 and only achieved high utilisation rates in 2023.

Russian Polyacrylate Production (unit-kilo tons)			
Jan-Oct 24	Jan-Oct 23		
78.844	69.403		
40.986	37.825		
125.536	112.195		
	Jan-Oct 24 78.844 40.986		

Polyacrylate production totalled 125,336 tons in the first ten months last year, up from 112,195 tons in 2023. The biggest region in Russia for the production of polyacrylates is the Central Federal District where SIBUR-Neftekhim produces at Dzerzhinsk.

In October last year SIBUR-Neftekhim has resumed the production of ethyl acrylate at its plant in Dzerzhinsk, with a capacity of 32 tons per day. SIBUR has chosen to increase the production of ethyl acrylate for the domestic market, providing the biggest opportunity for sales. Currently the company is the only producer of these light esters in Russia, as well as the heavy ester of 2-ethylhexyl acrylate. Ethyl acrylate is used in the production of acrylic emulsions, varnishes and paints, adhesive compositions, sealants and other polymer products in leather, printing, paints and varnishes, etc.

Russian polyurethane raw materials

South Korean Exports of TDI to Russia			
Jan-Oct 24 Jan-Oct 23			
Ktons	25.801	6.020	
\$ million	49.089	14.282	
Av Price \$/ton	1902.6	2372.5	

Chinese Exports of TDI to Russia South Korea exported more TDI to Russia in the first ten months last year than China 100 59 410 46.312 50 23 452 23.197 0 Kilo tons \$ million ■ Jan-Oct ■ Jan-Oct 23

Isocyanate/polyol imports into Russia

TDI imports into Russia from South Korea have increased last year, rising from 4,216 tons in January to October 2023 to 25,801 tons in January to October 2024. The increase has taken place in 2024 as China has been unable to supply more TDI to compensate for the loss of Western imports.

> Prices of imports from South Korea amounted to \$1902.6 per ton in the first ten months in 2024 against \$2375.5 per ton in 2023.

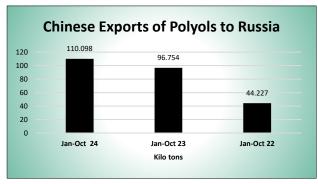
TDI imports from China into Russia amounted to 18,361 tons in January to October 2024 against 18,828 tons in the same period in 2023. Due to much lower prices, costs of Chinese imports dropped from \$49.801 million to \$36.770 million in 2024.

Russian Production of Isocyanates (unit-kilo tons)		
	Jan-Oct 24	Jan-Oct 23
Central	2.108	1.946
Volga	0.930	0.000
Others	0.126	0.026
Total	3.164	1.972

Polyurethane consumption in Russia was stable for most of 2024, although sellers of foam are now concerned about the implications of inflation and almost inevitably lower volumes. Investments into polyurethanes continue even if they are quite The shortage of critical imported MDI put some Russian companies into some difficulty in the second half of 2024, although there was an improvement in the fourth quarter. isocyanate production in Russia takes place at three locations, but the volumes are very small and do not contribute to the polyurethane producers.



The main isocyanate imported into Russia is MDI, which accounted for 75.4% of all imports in this segment in 2023. The share of Chinese MDI in imports increased from 22.7% in 2021 to 53.5% in 2023. After encountering shortages of MDI in the second and third quarters, Russian consumers benefited in October from an increase in shipments from China. Russian companies have faced significant difficulties since July in paying Chinese suppliers and banks. The weak value of the rouble has made imports very expensive for some consumers.



first ten months in 2023 to \$122.336 million last year. Average prices increased from \$1825.0 per ton in 2023 to \$1417.7 in 2024.

After sorting out a new payment method between the two countries imports from China amounted to 14,544 tons in October which was the highest amount in 2024. increase imports from China fell from 99.839 tons in the first ten months in 2023 to 83,129 tons in January to October 2024.

Polyol imports into Russia from China increased from 96,974 tons in January to October 2023 to 110,098 tons in the same period in 2024. Import costs rose from \$122,700 million in the

Kazakhstan-Central Asia

Kazakh production of PP Jan-Oct 2024

Kazakhstan Petrochemical Industries produced 165,000 tons of polypropylene in the first ten months

Kazakh Exports of PP to China		
	Jan-Oct 23	
Kilo tons	69.325	57.197
\$ million	59.030	54.522

in 2024, of which 13,000 tons were sold on the domestic market and around 150,000 tons were exported. Products are exported to Europe, China, Russia and Turkey, with a special focus on supporting Kazakh processors. Kazakh exports of polypropylene to China amounted to 64,127 tons in the first ten months in 2024 against 57,197 tons in the same period in 2023,

with revenues rising from \$45,204 million to \$48.796 million. KPI produces eight grades of polypropylene, five of which have not been previously produced in Kazakhstan.

Kazakh Petrochemical Production		
Product	Jan-Oct 24	Jan-Oct 23
MTBE	37.3	33.1
PP	241.0	154.1
Benzene	26.6	20.0
Paraxylene	109.4	17.8

Petrochemical production in Kazakhstan amounted to 460,700 tons in the first ten months versus 269,000 tons in the same period in 2023. This included a rise in polypropylene from 154,100 tons to 241,000 tons, whilst paraxylene increased from 17,800 tons to 109,400 tons.

Paraxylene 109.4 17.8 In addition, the industry is undertaking projects for the production of butadiene and its derivatives with a capacity of up to 305,000 tpa as well as polyethylene up to 1.250 million tpa with a planned launch by 2030.

Uzbek MTO project-delivery of equipment for PET

Equipment for the construction of the PET production unit has started arriving at the construction site of the MTO Gas Chemical Complex (GCC MTO). A heat exchanger, manufactured by the Chinese company Wuhan East Petrochemical Equipment will be used in the construction of the PET unit under

Chinese Exports of PET to Uzbekistan and Kazakhstan (unit-kilo tons)			
Country	Jan-Oct 24	Jan-Oct 23	
Kazakhstan	61.155	64.024	
Uzbekistan	121.734	97.051	

the supervision of the US licensor, Chemtex. The main purpose of the new equipment is to maintain the optimal temperature in the PET reactor to ensure the required parameters of the final product.

Uzbekistan 121.734 97.051 The heat exchanger was delivered to the construction site of the MTO project at Karakul in Uzbekistan by ground. This involved transportation of over 5,000 kilometres across China and along Kazakhstan's southern border, and then arrived in Uzbekistan through the Yallama border post.

Uzbek MTO project-overall design

The 3D model of the methanol to olefins unit at the MTO Gas Chemical Complex has reached 60% readiness by the end of October, which is sufficient to allow construction to commence. Achieving 60% model completion indicates that the project has reached the "Issue for Construction (IFC) without holds" stage. At this point, the documentation is ready for construction use, and the main and auxiliary equipment has already been designed and ordered. All parameters, dimensional characteristics, main communication lines, connection points, and other critical components are compatible with each other, and no major changes will be made to the project, enabling the EPC contractor to begin construction.

The MTO unit is being designed by the Italian division of the international engineering leader WOOD. Alongside the polypropylene and low-density polyethylene production facilities, it is part of the first start-up complex the group of production facilities at the MTO Gas Chemical Complex, which are the first ones to be constructed and launched.

In addition to the readiness of the first start-up complex, the complete launch of the MTO Gas Chemical Complex requires the finalization of the design and construction of the general plant facilities (GPF). Work in this area is ongoing, and it is expected that 60% of the 3D model of the GPF, being designed by Uzliti Engineering, will be ready by the first quarter of 2025.

The MTO Gas Chemical Complex project is being implemented using a parallel design approach, where engineering work proceeds simultaneously with construction activities, providing added flexibility in project execution and the ability to make necessary adjustments at later stages.

Kazakh polyethylene project-construction

A jv between Técnicas Reunidas SA and Sinopec Engineering Group, has been awarded a contract by KazMunayGaz worth about €2.3 billion. Under the terms of the agreement, the company will design and build an ethane cracker for Silleno's ethylene and polyethylene complex in Atyrau. According to Técnicas, the capacity of the steam plant will be 1.3 million tpa of ethylene. Its construction is expected to be completed by the end of 2028, and then launched in January 2029. The total duration of construction is 45 months with the start taking place in May 2025.

Azerbaijan Methanol Market (unit-kilo tons)		
	Jan-Oct 24	Jan-Oct 23
Production	421.4	385.0
Exports	402.0	373.7
Value \$ mil	83.6	82.1

SOCAR Jan-Oct 2024

Azerbaijan produced 421,400 tons of methanol in January-October 2024, which is 5.7% more than in the corresponding period in 2023. Azerbaijan exported 401,959 tons of methanol in the first ten months which is 1.8% higher than in the same period in 2023. At the same time, the value of the volume of export products

increased by 14.7%, amounting to \$83.855 million.

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