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MONTHLY NEWS

Chemical Industry News for Central Europe, South East Europe and Eurasia

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Key points from Issue 358

Central European petrochemical markets

- MOL has begun research and development into polyols with the aim of identifying ten product types with significant market potential
- Further construction works on the Polimery Police project involves the flyover in the Police sea port which will connect the designed reloading and storage terminal with the PDH installation.
- PCC Rokita achieved a net profit of zł 30.17 million in the first half of 2020 compared to zł 41.78 million in the first half of 2019
- Although revenues for Grupa Azoty were 17% lower in the first half of 2020, lower gas prices enabled the increase in profits.

Russian chemical production

- Russian ethylene production amounted to 2.425 million tons in the first seven months in 2020 versus 1.799 million tons in the same period in 2019
- Russian benzene production rose in the first seven months in 2020 to 812,600 tons against 781,400 tons in the same period in 2019
- Export activity increased in the first seven months rose to 24,000 tons of phenol against 11,900 tons in the same period last year
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Russian chemical trade

- Due to lower domestic demand for caprolactam Russian exports increased in the first half of 2020 to 131,000 tons against 103,600 tons in the same period in 2019
- Russian companies increased their methanol shipments for export in the first seven months to 1.308 million tons against 1.268 million tons in the same period in 2019
- Styrene exports from Russia totalled 23,400 tons in the first quarter in 2020 against 35,500 tons
- Russian companies increased their methanol shipments for export in the first quarter to 378,100 tons in the first quarter in 2020 against 344,800 tons in the same period in 2019

Petrochemical projects

- The Irkutsk Oil Company (INK) has completed the construction of a special berth on the Lena River in order to receive equipment from the Irkutsk Polymer Plant (IZP)
- The Baltic Chemical Complex announced the start of public discussions on the construction of a gas chemical complex at Ust-Luga
- Ust Luga methanol projects delayed by COVID-19, Skovorodino methanol project awards licencing contract to Johnson Matthey
- Jizzakh Petroleum has become one of the majority investors in the project for the construction of a new modern chemical complex in Uzbekistan based on MTO technology
- Kazakh polypropylene project at Atyrau delays completion due to COVID-19

CENTRAL & SOUTH EAST EUROPE

PKN Orlen-margins

PKN Orlen reported a refinery margin of \$0.9 per barrel of oil in August which was the lowest level this year.

PKN Orlen Chemical Production (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Ethylene	283.4	305.0
Propylene	258.7	263.6
Butadiene	5.3	37.4
Toluene	12.3	7.6
Phenol	26.5	26.7
Polyethylene	209.2	221.2
PVC	158.4	169.9
Polypropylene	200.5	199.3

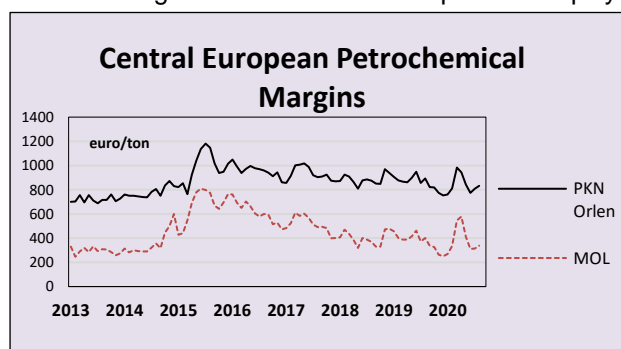
The model downstream margin of the PKN Orlen group amounted to \$5.7/b in August 2020 compared to \$5.2/b in July and \$12.6/b in August 2019.

The model petrochemical margin was €833 per ton, in August against €808 in July and €892 in August last year. The model petrochemical margin is based on revenues from HDPE, LDPE, polypropylene homopolymer and copolymer. MOL's petrochemical margins follow a similar trend although using a different basis for calculation. In the first seven months this year the Orlen Group through its jv in Poland BOP produced 209,200 tons of polyethylene against 221,200 tons in January to July 2019 whilst

polypropylene production increased slightly from 199,300 tons to 200,500 tons.

MOL-polyol development

MOL has begun research and development into polyols with the aim of identifying ten product types with significant market potential based on preliminary evaluations, with better properties compared to similar products from competitors. The company is building a polyol complex at Tiszaújváros for €1.2 billion, and the polyol research and development (R&D) department will play an essential role for the successful operation of the plant.



In order to support the project a grant of Ft 483.3 million has been provided by the state-run National Office for Research, Development and Innovation.

This will also contribute towards driving the direction of the MOL Group's strategic goals for 2030 whereby the petrochemical business will contribute an increasing share to the results of the group.

Polimery Police project

Further construction works on the Polimery Police project in northern Poland has involved concreting a huge

Polimery Police Project Feedstocks & Production Capacity	
Product	Volume (unit kilo tons)
Propane	499.0
Ethylene	13.0
Propylene	429.0
Polypropylene	437.0

tank for untreated water, whilst concluding an agreement on the building permit for the flyover in the Police sea port. The flyover will connect the designed reloading and storage terminal with the planned PDH installation. As part of the investment, flyovers will be constructed for technological pipelines and overground installations as well as product pipelines for propane, ethylene and natural

gas.

Another permit has been granted for the construction of the transshipment and storage terminal at Police seaport to support the project. The transshipment and storage terminal will be used for unloading and storage of propane and ethylene from sea-going vessels and for supplying raw materials to installations. This represents the third key decision of the West Pomeranian authorities regarding the Polimery Police investment. At the end of May this year agreements were concluded between Grupa Azoty and its subsidiaries with Grupa Lotos., Hyundai, and Korea Overseas Infrastructure & Urban Development Corporation (KIND) for financing the Polimery Police project. Grupa Lotos undertook to invest a total amount of zł 500 million in the Project by making a cash contribution in the total amount of zł 300 million for coverage

increased share capital of Grupa Azoty Polyolefins and acquisition of new shares, and providing Grupa Azoty Polyolefins with a subordinated loan in the amount of zł 200 million.

Hyundai, in turn, committed to invest in the Project a total amount of \$73 million by making a cash contribution to cover the company's increased share capital to Grupa Azoty Polyolefins and acquisition of new shares, and KIND has committed to invest in the Project total of \$57 million by making a cash contribution of \$5 million to cover increased share capital of Grupa Azoty Polyolefins and acquisition of new shares, and providing Grupa Azoty Polyolefins with a subordinated loan in the amount of \$52 million. The commissioning of the propylene and polypropylene production plant is targeted for 2022, although Hyundai is reported to have requested more time. The total cost of the investment is estimated at €1.5 billion but may be slightly higher.

Czech Petrochemical Exports (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Ethylene	7.6	57.2
Propylene	5.1	6.0
Butadiene	0.0	3.0
Benzene	10.2	31.9
Toluene	2.9	6.8
Ethylbenzene	29.4	90.9
Caprolactam	25.3	22.1

Czech petrochemical trade, Jan-Jul 2020

Spolana has completed scheduled repairs at Neratovice, restarting production on 5-6 September.

Czech Petrochemical Imports (unit-kilo tons)		
Product	Jan-July 20	Jan-Jul 19
Ethylene	2.4	0.1
Propylene	31.4	22.7
Butadiene	34.3	14.6
Benzene	50.5	55.2
Toluene	3.1	0.0
Styrene	22.0	10.4

Production reached full capacity by 10-11 September. The company stopped production at the 48,000 tpa caprolactam plant on 1 August 2020. Spolana exported 25,371 tons of caprolactam in January to July 2019 against 22,100 tons in January to July 2019.

Ethylbenzene exports from Kralupy dropped in the first seven months to 29,400 tons against 90,900 tons in the same period last year. All Czech

ethylbenzene is shipped to Poland to the Oswiecim plant owned by Synthos.

For inward shipments benzene imports into the Czech Republic amounted to 50,500 tons in the first seven months against 55,200 tons. Last year Poland shipped 90,351 tons of benzene to the Czech Republic supplemented by 11,273 tons from Serbian refinery NIS at Pancevo. Propylene imports rose from 22,700 tons to 31,400 tons in the first seven months in 2020, whilst styrene monomer shipments rose to 22,000 tons.

Serbian Chemical Exports (unit-kilo tons)		
Product	Jan-Jun 20	Jan-Jun 19
Polyethylene	55.7	43.6
Polypropylene	7.4	6.2
Styrene Butadiene Rubber	10.2	7.6
Methanol	56.2	49.2
Acetic Acid	45.4	32.6

HIP-Petrohemija, gross profit drops slightly in 2020

In the first seven months in 2020 Petrohemija recorded a gross profit of 323 million dinars which was 100 million dinars lower than in the same period in 2019. Polyethylene exports from Pancevo rose in the first half of 2020 to 55,700 tons against 43,600 tons whilst

exports of styrene butadiene rubber increased from 7,600 tons to 10,200 tons.

Rompetrol Rafinare-Petromidia refinery

Rompetrol Rafinare is preparing to start production of a special type of polypropylene used to manufacture protective medical masks. The new product, developed by the group's petrochemical division, is meant for the middle layer of the mask which is assessed to comprise the most important layer for filtering and protecting against pathogens. Currently, Rompetrol Rafinare produces all grades of polypropylene which

Rompetrol Rafinare Olefin Processing (unit-kilo tons)		
Product	Jan-Jun 20	Jan-Jun 19
Ethylene	17.0	28.0
Propylene	48.0	76.0

are suitable for obtaining type FPP1 and FPP2 sanitary and surgical masks and medical accessories. Polypropylene is provided by the Petromidia refinery, while the necessary ethylene for the polyethylene unit is ensured by imports. Rompetrol Rafinare posted a \$126.5

million (€106.8 million) net loss in the first half of 2020, compared to a \$19.43 million net loss in the same period of 2019. During the first half of 2020, the petrochemical segment processed a total of 48,000 tons

of propylene, compared to 76,000 tons in the first half of 2019. However, the volume of processed ethylene grew to 28,000 tons from 17,000 tons in January-June 2019.

Polish PTA Exports, Jan-May 2020		
Country	Vol (ktons)	Value (€ mil)
Austria	1.0	0.6
Belgium	4.4	2.4
Belarus	13.1	7.7
Lithuania	6.1	3.1
Germany	138.6	76.2
Switzerland	3.5	2.2
Turkey	1.9	1.1
Italy	1.5	1.1
Others	3.6	1.6
Total	173.7	96.1

Polish PTA trade, Jan-May 2020

Polish PTA sales amounted to 173,700 tons in the first five months in 2020 for a value of €96.1 million. Germany took the largest volume at 138,600 tons followed by Belarus with 13,100 tons. The Orlen Group sells PTA, PVC and polypropylene into Belarus, although prices given are largely lower than market numbers. In turn, Russian oil flows through Belarus to the refinery in Plock. Orlen ensures that deliveries are carried out without supply interruptions.

Czech chemical trade, Jan-Jul 2020

Methanol exports into the Czech Republic amounted to 53,000 tons in the first seven months in 2020 against 66,700 tons in same period last year. Russian shipments of dropped from 39,600 tons to 21,600 tons, whilst volumes from Poland jumped from 3,800 tons to 21,800 tons. Polish shipments into the Czech market this year are thought to be Russian produced methanol. Due to lower methanol prices costs of imports dropped from €14.718 million in the first seven months last year to €12.227 million this year.

Czech Methanol Imports (unit-kilo tons)		
Country	Jan-Jul 20	Jan-Jul 19
Germany	8.1	12.7
Norway	0.7	8.5
Russia	21.6	39.7
Slovakia	0.5	0.1
Poland	21.8	3.8
Others	0.4	1.9
Total	53.0	66.7

TDI imports into the Czech Republic amounted to 3,452 tons in the first seven months at a cost of €10.036 million, down from 4,869 tons in the same period in 2019 at a total cost of €13.111 million. MDI imports into the Czech Republic amounted to 16,983 tons in the first seven months against 16,550 tons in 2019, whilst costs of imports dropped from €26.808 million to €22.927 million.

Phthalic anhydride exports from the Czech Republic totalled 7,394 tons in January to July this year for €5.761 million, against 8,476 tons at a value of €8,331. Regarding DINP plasticizers, imports into the Czech Republic totalled 6,019 tons in January to July 2020 at a total cost of €5.651 million. This reflected a rise from 7,113 tons in January to July 2019 for a total cost of €8.830 million. DINP plasticizer exports from the Czech Republic totalled 24,318 tons in the first seven months in 2019 at a total cost of €29.275 million against 28,859 tons in 2019 for €25.003 million.

Czech MDI Imports (unit-kilo tons)		
Country	Jan-Jul 20	Jan-Jul 19
China	1.7	0.9
Belgium	5.1	4.7
Germany	6.1	7.2
Italy	0.1	0.2
Hungary	1.7	2.5
Netherlands	1.2	0.6
Others	1.0	0.4
Total	16.9	16.5

PCC Rokita Sales (unit-kilo tons)		
Category	Jan-Jun 20	Jan-Jun 19
Polyurethanes	43.1	43.0
Chlorine Division	174.0	154.0
Other chemicals	12.8	13.1

PCC Rokita Jan-Jun 2020

PCC Rokita achieved a net profit of zł 30.17 million in the first half of 2020 compared to zł 41.78 million in the first half of 2019. The EBITDA result amounted to zł 129.73 million compared to zł 131.67 million last year. In the second quarter this year, polyol prices dropped from the first quarter due to lower demand but also due to significant reductions in the prices of propylene oxide and ethylene oxide. PCC Rokita uses mostly propylene oxide, which it produces at Brzeg Dolny, whilst autonomous division PCC Exol uses ethylene oxide which it sources mostly from PKN Orlen.

PCC Rokita's polyurethane segment consists of the Polyol Complex, which is part of PCC Rokita and its subsidiaries: PCC Prodex, PCC PU and, since 2017 the venture in Thailand IRPC Polyol Co. Ltd. The Polyol Complex at Brzeg Dolny is engaged in the production of polyol ether, used mainly for the production of polyurethane foams used in such industries as furniture (e.g. mattress foam, furniture and pillows), construction (e.g. insulation foam, assembly foam) and the automotive industry (e.g. manufacture of seats, dashboards and headliners).

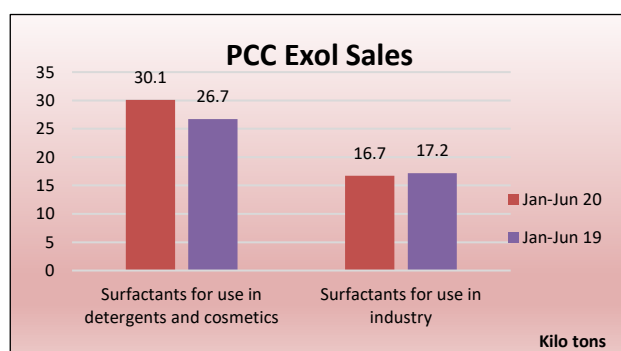
Due to the lower demand for specialist polyols in the first half of 2020, PCC Rokita focused on sales in other areas in order to maintain the continuity of production and deliveries. Revenues from external sales of the polyurethanes segment accounted for approximately 46% of the group's turnover in the first half of the year.

Polish Chemical Production (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Caustic Soda Liquid	217.0	212.5
Caustic Soda Solid	43.9	37.7
Caprolactam	89.7	97.7
Acetic Acid	3.1	4.0
Polystyrene	39.5	39.0
EPS	58.2	62.2
Synthetic Rubber	158.7	165.7
Ammonia (Gaseous)	1347.2	1410.0
Ammonia (Liquid)	59.2	58.9
Pesticides	43.8	39.1
Nitric Acid	1422.0	1340.0
Nitrogen Fertilisers	1224.0	1126.0
Phosphate Fertilisers	242.4	273.6
Potassium Fertilisers	214.6	253.1

Lower profits in the first half of 2020 were partly attributed to propylene oxide prices; PCC Rokita is both a producer and buyer. In the first half of 2020 PCC Rokita's polyurethane sales were divided between domestic sales (49%) and export sales (51%) for which Germany was the largest destination amongst EU customers.

PCC Exol Jan-Jun 2020

In the first half of 2020 PCC Exol achieved EBITDA of zł 37.6 million, which was zł 9.5 million higher than in the first half of 2019. The net profit closed at zł 21.7 million, improving last year's result for the first half of the year by 22.2%. For PCC Exol, the raw materials most susceptible to price fluctuations comprise fatty alcohols and natural oils, which account for approximately 25% of raw material supplies. These prices depend on the CPKO (Crude Palm Kernel Oil) quotation in Malaysia, which is highly speculative and subject to weather changes. Ethylene oxide is less volatile than CKPO where falls of 50% were noted in the second quarter this year.



PCC Exol increased sales of products for use in detergents and cosmetics by 10% in the first half of 2020. However, in the last six months, the demand for products in some industrial sectors, such as textiles, tanning, as well as for products that are raw materials for products for the production of polymers or institutional washing, has decreased. PCC Exol has also begun research on the development of surfactants with a special polymeric structure, in addition to carrying out subsequent stages of the investment at the ethoxylate plant at Brzeg Dolny.

Ciech Financial Performance (zł million)		
	Q2 2020	Q2 2019
Net result	-5.0	20.5
Revenue	689	860
EBITDA	133	172

Ciech Q2 2020

Ciech, the second largest European soda ash producer, posted a net loss of zł 5 million (\$1.3 million) in the second quarter on the back of coronavirus pandemic-induced lockdowns across the region. The financial results exclude the "discontinued operations" of the Ciech Żywiec epoxy resins subsidiary, with a process to sell the unit to Polish company LERG under way. The volume of soda ash sold by the company in Q2 fell by 14%.

The company hopes for a recovery in the "shape of an elongated U" for most of its businesses.

Grupa Azoty Average Prices (€)		
Product	Jan-Jun 20	Jan-Jun 19
2-EH	893	1082
DOTP	1016	1023
Propylene	681	928
Caprolactam	1582	1948
Polyamide	1680	1989
Phenol	1243	1334
Melamine	1405	1558

Grupa Azoty, Jan-Jun 2020

Grupa Azoty recorded zł 57.1 million of net profit in the second quarter, which represents an increase of zł 22.5 million against the same quarter in 2019. The EBITDA result increased by zł 29 million to zł 315 million and the EBITDA margin increased by 3.4% and amounted to 13.9% in the second quarter.

In the first half of 2020 Grupa Azoty posted zł 222.1 million in net profit, as well as zł 752.8 million in EBITDA and zł 5,372.6 million in revenues. Although revenues were 17% lower in the first half of 2020, lower gas prices enabled the increase in profits.

RUSSIA

Russian Chemical Production (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Caustic Soda	747.4	742.9
Soda Ash	1,914.0	1,980.0
Ethylene	2,424.9	1,799.2
Propylene	1,533.0	1,381.9
Benzene	804.7	848.0
Xylenes	294.8	218.4
Styrene	422.3	426.1
Phenol	148.1	130.3
Ammonia	11,600.0	10,700.0
Nitrogen Fertilisers	6,625.0	6,764.0
Phosphate Fertilisers	2,574.0	2,456.0
Potash Fertilisers	5,671.0	4,697.0
Plastics in Bulk	5,744.0	4,934.0
Polyethylene	1,957.0	1,326.0
Polystyrene	330.7	316.1
PVC	598.6	589.4
Polypropylene	1,064	924.1
Polyamide	92.4	94.0
Synthetic Rubber	861.0	881.0

Russian chemical production, Jan-Jul 2020

Chemical production in Russia rose by 5.3% in the first seven months this year, a large part of which was due to the start-up of the huge ZapSibNeftekhim complex at Tobolsk. As a result, ethylene production rose from 1.799 million tons in January to July 2019 to 2.425 million tons in the same period this year, whilst propylene jumped from 1.382 million tons to 1.533 million tons. In other product areas benzene production dropped 4.9% to 804,700 tons and phenol rose by 19% to 148,100 tons.

Russian production of polymers increased by 20.7% in the first seven months to 5.744 million tons, including an increase in polyethylene from 1.326 million tons to 1.957 million tons and polypropylene from 924,100 tons to 1.064 million tons.

In base commodities caustic soda production amounted to 747,400 tons which is 1.7% higher whilst fertilisers dropped by 0.2% to 14.9 million tons. Ammonia production rose from 10.7 million tons to 11.6 million tons, the rise due to the results of expansions and new plants starting up.

Regarding trade in all types of chemicals turnover dropped from \$28.9 billion in January to July 2019 to \$25.3 billion in the same period this year, with exports accounting for \$9.1 billion and imports \$16.2 billion. For organic chemical exports Russia shipped 3.551 million tons in the first seven months for \$1.560 billion whilst imports totalled 900,000 tons for \$2.730 billion. Imports of organic chemicals rose in value from \$2.560 billion but dropped in quantity from 959,000 tons in January to July 2019.

Russian petrochemical projects

Baltic Chemical Complex-petrochemical licensing

The Baltic Chemical Complex (BHK, a 100% subsidiary of RusGasDobycha) announced the start of public discussions on the construction of a gas chemical complex as part of an ethane-containing gas processing complex at Ust-Luga. China National Chemical Engineering Group Corporation has already signed an agreement for the first stage of the EPC (engineering and construction). Under the license agreement, Lummus Technology (McDermott) has been awarded a provisional contract for providing the technology for olefin production and recovery.

Baltic Chemical Complex (BHK) Project Licensing		
Company	Product	Capacity
Axens	Alpha Olefins	110,000 tpa
Lummus	Ethylene	2.8 million tpa
Univation	Polyethylene	3 million tpa

BHK will buy licensing rights for ethylene production technology that is expected to yield a total amount (lines 1 and 2) of up to 3 million tpa (licensed capacity of 2.8 million tpa). Univation Technologies has been appointed provisional provider of licensed polyethylene technology. In September 2020 Baltic Chemical Complex and Axens signed an agreement for the supply of alpha-olefin production technology

Regarding incentive benefits from investments into petrochemicals, the Russian government is establishing a tax deduction for ethane or LPG when companies introduce capacities after 1 January 2022. The conditions of the tax deduction include the processing of at least 300,000 tpa of raw materials or to make investments into petrochemicals of at least 65 billion roubles. Not only does this include the Baltic Chemical Complex, but also other projects such as the Amur Gas Chemical Complex and the Irkutsk Polymer Plant.

Irkutsk Oil Company (INK) receives first equipment for polyethylene plant at Ust Kut

The first shipment of equipment for the Irkutsk Polymer Plant (IZP) arrived on 21 August at the specially created berth on the Lena River at the Ust Kut site. The berth was created by the Irkutsk Oil Company (INK) which has facilitated the arrival and delivery of equipment such as the deethanizer which extends a length of 81.9 metres weighing 357 tons. Irkutsk Polymer Plant also expects to unload the polymerisation reactor weighing 597 tons and a length of 44.5 metres.

The delivery of equipment starts from the Korean port of Masan after which it requires three weeks of travel to the Russian port of Tiksi. From Tiksi equipment is reloaded onto river barges and sent along the Lena River for around 2,000 km to Ust-Kut in the Irkutsk Oblast. Companies from Japan, South Korea and China are supplying equipment for the Irkutsk Polymer Plant.



The construction of the Irkutsk Polymer Plant comprises 650,000 tpa of polyethylene. The raw material for the polymer plant will be natural and associated gas produced at the fields of the INK group of companies in the northern regions of the Irkutsk Oblast.

The Irkutsk Oil Company aims to launch a gas fractionation unit at the Ust-Kut gas processing complex in 2021. The Ust-Kut gas processing plant includes a gas fractionation unit and a complex for the reception, storage and shipment of LPGs. Currently, installation of the main technological and auxiliary equipment is

ongoing at the facility. A pipeline system is under construction for the transportation of associated gas from the Yarakta oil and gas condensate field to the Ust Kut site for a length of 24.4 kilometres. The pipeline will provide 2.4-4.5 million cubic metres of gas per day.

Russian Ethylene Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Angarsk Polymer Plant	112.7	107.2
Kazanorgsintez	369.2	385.4
Stavrolen	201.8	199.0
Nizhnekamskneftekhim	383.9	382.2
Novokuibyshevsk Petrochemical	28.4	38.9
Gazprom n Salavat	221.3	189.9
SIBUR-Kstovo	217.1	228.8
SIBUR-Khimprom	33.0	30.2
Tomskneftekhim	167.1	162.5
Ufaorgsintez	76.2	75.1
ZapSibNeftekhim	614.3	0.0
Total	2424.9	1799.2

Russian petrochemical markets

Russian ethylene production, Jan-Jul 2020

Russian ethylene production amounted to 2.425 million tons in the first seven months in 2020 versus 1.799 million tons in the same period in 2019. ZapSibNeftekhim produced 614,300 tons of ethylene at Tobolsk in the period January to July 2020, which accounted for most of the rise over last year. Nizhnekamskneftekhim was the second largest Russian producer, producing 383,900 tons against 382,200 tons in the same period in 2019 whilst Kazanorgsintez dropped from 385,400 tons to 369,200 tons in January to July this year.

Regarding production margins producers have been able to increase pricing over the third quarter from the lows of the second quarter. The cost of ethylene in the domestic market rose overall by 8% in August over July to 42,000-46,800 roubles, particularly affecting plants in Bashkortostan and Tatarstan which are located on the Volga-Urals ethylene pipeline. Pipeline prices rose per ton, based on higher costs of raw materials for pyrolysis and also a decrease in the rouble against the dollar and the euro. Regarding supply, scheduled maintenance was completed in August at the Angarsk Polymer Plant and SIBUR-Kstovo whilst being started at Ufaorgsintez lasting into September.

Russian propylene production, sales & exports, Jan-Jul 2020

Russian propylene production amounted to 1.533 million tons in the first seven months in 2020, up from against 1.382 million tons in the same period in 2019. As with ethylene, the rise was due largely to the

addition of ZapSibNeftekhim which produced 232,700 tons in January to July 2020. SIBUR-Tobolsk, which is separate from ZapSibNeftekhim, increased production from 267,800 tons to 235,700 tons, whilst Nizhnekamskneftekhim produced 184,300 tons against 192,900 tons and Lukoil-NNOS produced 136,300 tons against 174,100 tons.

The growth in the contract price of propylene in Europe contributed to the rise in the price of propylene monomer in the Russian market in August. In the Volga Federal District propylene price rose to 40,000-43,000 roubles per ton which is 6,500-6,700 roubles higher than in July. In Siberia, propylene fractions from the Angarsk Polymer Plant were being sold at 30,000-34,000 roubles per ton.

Russian Propylene Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Angarsk Polymer Plant	62.1	59.3
Kazanorgsintez	27.6	29.2
Lukoil-NNOS	136.3	174.1
Stavrolen	78.8	80.2
Nizhnekamskneftekhim	184.3	192.9
Novokuibyshevsk	19.1	25.0
Omsk Kaucuk	21.0	26.5
Polyom	106.2	110.7
Gazprom neftekhim Salavat	95.9	84.7
SIBUR Kstovo	95.6	98.8
SIBUR-Khimprom	31.5	33.5
Tomskneftekhim	94.0	86.6
SIBUR-Tobolsk	235.7	267.8
Ufaorgsintez	112.5	112.6
ZapSibNeftekhim	232.7	0.0
Total	1533.4	1381.9

Russian sales of propylene on the domestic merchant market amounted to 256,300 tons in the first seven months in 2020 against 269,000 tons in the same period last year. The increase in supply this year was due to an increase in the demand by SIBUR-Tobolsk for raw materials to produce polypropylene. A total of 41,000 tons of propylene were shipped to the Tobolsk plant, 85% more than the same period last year.

Lukoil-NNOS at Kstovo shipped 136,300 tons of propylene to the domestic market against 174,100 tons in the first seven months last year, whilst SIBUR-Kstovo shipped 95,600 tons to the merchant market against 98,800 tons. The largest merchant consumer of propylene in Russia Saratovorgsintez at Saratov purchased 95,500 tons in the first seven months in 2020 against 114,300 tons in the same period in 2019.

At the beginning of August following maintenance, the Angarsk Polymer Plant resumed production and shipments of the propylene fractions. In August, the supply of propylene on the market exceeded demand after consumers Saratovorgsintez and the Synthetic Alcohol Plant at Orsk stopped production. The Synthetic Alcohol Plant was down for approximately three weeks and arranged in advance for propylene deliveries to arrive by the end of the month, sourced partly from Naftan in Belarus.

Russian Propylene Domestic Sales (unit-kilo tons)		
Company	Jan-Jul 20	Jan-Jul 19
Angarsk Polymer Plant	38.3	42.6
SIBUR-Kstovo	84.1	83.3
Lukoil-NNOS	121.0	132.9
Others	13.3	7.4
Total	256.3	265.2

Russian Propylene Exports (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Lukoil-NNOS	18.7	30.1
SIBUR-Kstovo	3.4	6.1
Angarsk Polymer Plant	0.7	0.0
Stavrolen	2.7	12.1
Total	25.4	48.3

Russian propylene exports amounted to 25,400 tons in the first seven months in 2020 against 48,300 tons in the same period in 2020. Exports were divided between the plants in the Nizhny Novgorod region, including Lukoil-NNOS and SIBUR-Kstovo, in addition to Stavrolen. The main destinations for Russian propylene exports included Belarus and Poland, which took 33% and 39% respectively.

Russian Styrene Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Nizhnekamskneftekhim	177.1	180.7
Angarsk Polymer Plant	19.8	20.5
SIBUR-Khimprom	86.0	78.2
Gazprom n Salavat	110.5	116.9
Plastik, Uzlovaya	29.8	29.9
Total	423.2	426.1

Russian styrene production & sales, Jan-Jul 2020

Russia produced 423,200 tons of styrene in the first seven months in 2020 against 426,100 tons in the same period in 2019. The largest producer Nizhnekamskneftekhim produced 177,100 tons against 180,700 tons in 2019. Gazprom neftekhim Salavat produced 110,500 tons against 116,900 tons, followed

by SIBUR-Khimprom at Perm where production totalled 78,200 tons against 86,000 tons in the previous year.

Styrene exports from Russia totalled 56,200 tons in the first seven months in 2020 against 76,400 tons in the same period last year. Gazprom neftekhim Salavat reduced exports from 63,700 tons to 47,100 tons, whilst Angarsk Polymer Plant shipped 6,800 tons in the first seven months this year against 3,200 tons. The main destination for styrene exported from Salavat is Finland accounting for 75% of shipments in the first seven months, followed by Norway and Turkey.

Bulk Polymers

Russian HDPE Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Kazanorgsintez	312.6	318.4
Stavrolen	186.7	182.5
Gazprom n Salavat	73.1	61.5
ZapSibNeftekhim	468.0	0.0
Total	1040.4	562.4

Russian polyethylene production Jan-Jul 2020

All types of Russian polyethylene production rose 84% in the first seven months in 2020 to 1.712 million tons against 1.086 million tons or 58% up on the same period last year. Production amounted to 249,800 tons in July against 210,500 tons in June.

For HDPE, production in July amounted to 147,500 tons versus 114,400 tons in June. In the first seven months in 2020 Russian HDPE production rose to 1.040 million tons against 562,400 tons in the same period last year.

Russian LLDPE market

LLDPE production in Russia increased to 51,400 tons in July against 37,400 tons in June. Over the seven months of this year, LLDPE production increased to 282,400 tons against 141,000 tons in the same period a year earlier.

Kazanorgsintez reduced production by 2% in the period January to July 2020 to 312,600 tons, whilst Stavrolen increased production by 2% to 186,700 tons. Gazprom neftekhim Salavat increased production by 19% to 73,100 tons whilst the largest Russian producer ZapSibNeftekhim produced 468,000 tons from the new plant at Tobolsk.

Russian LDPE production Jan-Jul 2020

Russian LDPE production amounted to 389,600 tons in the first seven months in 2020 which is 2% higher than in the same period in 2019. Tomskneftekhim began its scheduled two-year shutdown repairs on 31 August which was planned to last about three weeks. In January-July this year, the production of LDPE at Tomskneftekhim totalled 160,660 tons which was 4.6% up on 2019 when it was 154,590 tons. Angarsk Polymer Plant resumed production of LDPE at the end of August after an unplanned shutdown at the end of August due to technical problems in ethylene production. According to the company's clients, the Angarsk plant resumed operation of its LDPE production facilities by 28 August after being forced to stop on 10 August. For other shutdowns Ufaorgsintez started began consecutive shutdown for the repair of LDPE production facilities, which will last until 11 October, whilst Kazanorgsintez started a two-stage shutdown from 17 September lasting until 13 October.

Russian Polypropylene Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Ufaorgsintez	76.2	78.4
Stavrolen	68.8	64.3
Neftekhimiya	87.8	83.3
Nizhnekamskneftekhim	129.0	124.7
Polyom	110.4	127.1
Tomskneftekhim	90.0	86.8
SIBUR-Tobolsk	259.9	287.0
ZapSibNeftekhim	241.7	0.0
Total	1063.8	851.6

Russian polypropylene production Jan-Jul 2020

Polypropylene production in Russia increased by 24% in the first seven months in 2020 to 1.064 million tons compared 851,600 tons in the same period in 2019. SIBUR-Tobolsk produced 259,900 tons in January to July which is 9% less than the 287,000 tons produced in 2019.

For the first seven months this year ZapSibNeftekhim produced 241,700 tons of polypropylene. Regarding other producers,

Polyom at Omsk reduced production by 13% to 94,000 tons in the period January to July this year whilst Nizhnekamskneftekhim increased from 124,700 tons to 129,000 tons. Tomskneftekhim increased production by 4% to 90,000 tons whilst Ufaorgsintez reduced production by 3% to 76,200 tons. Neftekhimiya

increased production by 6% to 87,900 tons, and Stavrolen produced 68,800 tons against 67,300 tons in the period January to July 2019.

Russian exports of polypropylene totalled 393,000 tons in the first seven months, rising from 150,000 tons in January to July 2019. for a total value of \$359 million up from \$188 million. Despite the start-up of ZapSibNeftekhim, imports actually increased from 125,000 tons in January to July 2019 to 140,000 tons whilst revenue declined from \$207 million to \$189 million.

Russian PVC Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Bashkir Soda	154.3	148.0
Kaustik	43.7	43.2
RusVinyl	190.0	196.1
Sayanskkhimplast	169.0	166.3
Total	557.0	553.6

Russian PVC production & trade, Jan-Jul 2020

Russian PVC production rose by 1% in January-July 2020 to 557,000 tons. RusVinyl produced 190,000 tons against 196,300 tons, Sayanskkhimplast produced 169,000 tons against 166,300 tons in January to July 2019 and the Bashkir Soda Company increased production by 4% to 154,300 tons of PVC. Kaustik produced 43,700 tons against 43,200 tons.

Paraxylene-PTA-PET



Russian paraxylene exports Jan-Jul 2020

Russian aromatic producers reduced shipments of paraxylene to foreign markets by 25,000 tons in January-July this year to 75,900 tons, mainly due to the reduction in product output at the Kirishi refinery. Paraxylene was shipped to Belarus and Finland but supplies to the Latvian port of Liepaja for transshipment at the GI Terminals complex were not carried out. Exports to the Finnish port Kotka decreased over the period to 67,100 tons from 87,400 tons.

The largest volume of supplies was provided by the Omsk refinery belonging to Gazprom Neft at 48,100 tons. This year the Kirishi refinery has sent 17,500 tons of paraxylene to Finland, and Ufaneftekhim only

Russian PTA Imports by Country (unit-kilo tons)		
Country	Jan-Jul 20	Jan-Jul 19
Belgium	8.0	16.0
India	0.0	1.0
China	157.7	185.3
South Korea	7.0	41.9
Poland	3.0	2.3
Turkey	0.0	2.0
Thailand	0.0	3.0
Others	1.9	0.6
Total	177.5	252.1

2,300 tons. Prices for paraxylene exports have been on a constant downward trend since early 2019, dropping from \$871 per ton in January to July last year against \$528 per ton in 2020. PTA import prices into Russia have followed a similar pattern.

Russian PTA imports, Jan-Jul 2020

PTA imports into Russia totalled 177,500 tons in the first seven months of 2020 against 252,100 tons in January to July 2019. China reduced shipments to Russia to 157,700 tons in January to July 2020 against 252,100 tons whilst South Korea reduced deliveries from 41,900 tons to 7,000 tons.

Russian PTA Imports by Region (unit-kilo tons)		
Location	Jan-Jul 20	Jan-Jul 19
Kaliningrad	110.1	163.3
Moscow	61.7	40.2
Perm	0.0	12.5
Tver	0.0	8.1
Tyumen	2.5	16.0
Others	3.4	11.9
Total	177.7	252.1

Imports of PTA into Kaliningrad totalled 110,100 tons in January to July 2020 against 163,300 tons in the same period in 2019. Most of the deliveries have been sourced this year from China

Gazprombank provides funds for Titan-Polymer

Gazprombank and Titan-Polymer (part of the Omsk based Titan Holding) signed an agreement on a project to finance the construction of a plant in the

Pskov region for the production of biaxially oriented polyethylene terephthalate film and polyethylene terephthalate granules.

Titan-Polymer in the Pskov region is located in the Moglino SEZ producing polyester (PET) and biaxially oriented films (BOPET). The consumption level of BOPET films in Russia is estimated in the range of 32,000-46,000 tpa and is constantly growing. Currently domestic production stands at only 12,000. The new plant at Pskov will be capable of producing 72,000 tpa of film and 210,000 tpa of PET.

Russian Benzene Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Angarsk Polymer Plant	45.9	41.5
Gazprom Neft	68.9	46.6
LUKoil-Neftekhim	24.4	28.5
LUKoil-Permnefteorgsintez	28.0	30.7
Magnitogorsk MK	24.5	30.3
Nizhnekamskneftekhim	177.1	170.0
Novolipetsk MK	0.6	4.7
Gazprom n Salavat	125.3	101.7
Severstal	19.4	23.1
SIBUR-Holding	47.7	45.4
Slavneft-Yaroslavlorgsintez	39.4	30.8
Surgutneftegaz	38.2	48.3
Ryazan RN Holding	19.6	19.1
Ufaneftekhim	54.4	47.1
Ural Steel	5.9	5.9
Uralorgsintez	48.0	48.5
Zapsib	36.4	44.9
Novokuibyshevsk Petrochemical	8.8	14.2
Total	812.6	781.4

SIBUR-recycled PET production at Polief

SIBUR is launching a project to bring recycled PET granules into production at the site in Blagoveshchensk. The volume of PET-flex will be about 34,000 tpa. Secondary raw materials will be supplied from various regions of the country, including Bashkortostan (potential up to 20,000 tpa). The plant will install a post-treatment and sorting unit for flakes, which will make it possible to use secondary raw materials in the existing technological line. The aim is to use recycled PET packaging in Polief's technological processes by the middle of 2022.

Aromatics

Russian benzene production-sales, Jan-Jul 2020

Russian benzene production rose in the first seven months in 2020 to 812,600 tons against 781,400 tons in the same period in 2019. Nizhnekamskneftekhim increased production from 170,000 tons to 177,100 tons, whilst Gazprom neftekhim Salavat increased production from 101,700 tons to 125,300 tons. Rosneft's three benzene plants at Angarsk, Novokuibyshevsk and Ryazan produced a combined total of 83,300 tons against 74,900 tons in January to July 2019, whilst Gazprom Neft at Omsk increased benzene production from 46,600 tons to 68,900 tons.

Exports of Russian benzene totalled 60,800 tons in the first seven months in 2020 against 45,000 tons in the same period last year. Export availability was helped in the first seven months by lower demand on the domestic market. Most of the Russian benzene exports are sent to Latvia and the Netherlands for further distribution.

Russian Benzene Consumers (unit-kilo tons)		
Consumer	Jan-Jul 20	Jan-Jul 19
Kuibyshevazot	100.9	105.1
Azot Kemerovo	61.5	64.8
Shchekinoazot	48.7	34.9
Kazanorgsintez	40.5	37.6
Omsk Kaucuk	23.4	6.9
Novokuibyshevsk Petrochemical	29.9	21.0
Zapsib	25.6	34.3
SIBUR-Khimprom	61.9	55.2
Ufaorgsintez	4.2	8.3
Uralorgsintez	41.8	33.0
Others	56.5	29.9
Total	494.9	431.0

Although producers have been overstocked for a large part of 2020 the situation on supply started to change in July and August when as the effect of shutdowns supply on the domestic market tightened.

The largest Russian supplier to the domestic market this year has been SIBUR-Kstovo which started maintenance in July lasting until 15 August. In August, the price of benzene producers varied from 22,500-25,700 roubles per ton. Imports of benzene from the Atyrau refinery in Kazakhstan were not possible in July-August due to a plant shutdown. Imports of benzene from the Atyrau refinery rose

from 16,300 tons in the first seven months in 2019 to 23,100 tons in the same period in 2020.

The Stavrolen plant at Budyennovsk did not resume benzene production in August and does not expect to restart until the fourth quarter. The lack of product supplies from Ufaneftekhim also aggravates the shortage in the market. In early August, repair work was completed at Lukoil- PNOS and the Angarsk Polymer Plant. The first consignments of benzene from the Angarsk plant were shipped to Ufaorgsintez on 6 August.



The Lukoil plant supplies all of its benzene via the pipeline to SIBUR-Khimprom which was the second largest consumer of merchant product this year taking 61,900 tons. SIBUR-Khimprom uses benzene in the production of ethylbenzene. Kuibyshevazot purchased 100,900 tons of benzene in the first seven months in 2020 against 105,100 tons in the same period in 2019, whilst Azot at Kemerovo reduced purchases from 64,800 tons to 61,500 tons. The third Russian producer of caprolactam increased merchant purchases in the first seven months to 48,700 tons against 34,900

tons in January to July 2019.

From the phenol producers Kazanorgsintez was the largest buyer of merchant benzene in the first seven months this year, taking 40,500 tons against 37,600 tons in the same period last year. Novokuibyshevsk Petrochemical increased purchases from 21,000 tons to 29,900 tons whilst Omsk Kaucuk increased purchases from 6,900 tons to 23,400 tons. The fourth phenol producer Ufaorgsintez only buys small volumes of benzene on the open market due to having its own production.

Russian Caprolactam Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Kuibyshevazot	115.6	118.6
Shchekinoazot	34.3	35.3
SDS Azot	67.5	66.3
Total	217.4	220.2

Russian caprolactam production, Jan-Jul 2020

The three Russian caprolactam producers remain the largest domestic merchant consumers of benzene, followed by styrene and phenol producers. Russian caprolactam production amounted to 217,400 tons in January to July 2020 against 220,200 tons in the same period in 2019. Kuibyshevazot reduced production from 118,600 tons to 115,600 tons whilst

SDS Azot at Kemerovo rose from 66,300 tons to 67,500 tons.

Due to lower domestic demand for caprolactam Russian exports increased in the first half of 2020 to 131,000 tons against 103,600 tons in the same period in 2019. Whilst volumes increased values dropped with \$178.1 million from last year's first two quarters dropping to \$150.7 million, with prices falling from \$1675 per ton to \$1150 per ton. China imported 77,800 tons of caprolactam in the first half of 2020 against 53,500 tons in the same period last year.

Russian Orthoxylene Domestic Sales (unit-kilo tons)		
Company	Jan-Jul 20	Jan-Jul 19
Gazprom Neft	48.9	64.1
Ufaneftekhim	40.2	19.2
Kinef, Kirishi	6.8	7.2
Total	95.9	90.6

Russian orthoxylene & toluene market, Jan-Jul 2020

Orthoxylene sales on the Russian domestic market rose in the first seven months to 95,900 tons against 90,600 tons, due partly to increased usage in fuels. Kamteks-Khimprom remains the largest buyer in Russia, purchasing 37,800 tons in January to

July 2020 against 51,100 tons in the same period in 2019. Gazprom neftekhim Salavat reduced purchases from 7,500 tons to 5,000 tons whilst other buyers were much smaller and taking volumes of several hundred tons. Regarding export activity Russian shipments totalled 40,400 tons in the first seven months in 2020 against 40,100 tons in the same period in 2019. Revenues dropped to \$24.1 million in January to July 2020 against \$36.1 million last year

Toluene sales on the Russian domestic market totalled 77,100 tons in the first seven months against 86,900 tons in the same period last year. The largest supplier to the domestic market was Gazprom Neft at the Omsk refinery which shipped 26,400 tons against 34,300 tons in the previous year. Kirishinefteorgsintez shipped 14,200 tons of toluene to the domestic market against 20,900 tons in the first seven months in 2019.

Russian Toluene Domestic Sales (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Slavneft-Yanos	13.3	7.6
Severstal	4.6	3.9
LUKoil-Perm	13.5	15.6
Gazprom Neft	26.4	34.3
Zapsib	4.7	4.2
Kinef, Kirishi	14.2	20.9
Others	0.5	0.5
Total	77.1	86.9

Russian Phenol Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Ufaorgsintez	38.5	44.6
Kazanorgsintez	47.0	45.2
Novokuibyshevsk Petrochemical	39.4	40.7
Omsk Kaucuk	23.2	0.0
Total	148.1	130.4

same period last year. Omsk Kaucuk exported 5,500 tons which compensated for the absence of exports from Kazanorgsintez which shipped 3,100 tons last year. Elsewhere Ufaorgsintez increased exports from 6,300 tons to 17,200 tons. The major destinations for Russian phenol exports this year have included Poland, taking 24% of deliveries, followed by Belarus and Slovakia each with 15%.

Russian Phenol Exports (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Omsk Kaucuk	5.5	0.0
Kazanorgsintez	0.0	3.1
Ufaorgsintez	17.2	6.3
NNK	1.3	2.5
Total	24.0	11.9

Sales of phenol on the Russian domestic market amounted to 69,300 tons in the first seven months in 2020 against 75,300 tons in the same period in 2019. The two largest suppliers were Novokuibyshevsk Petrochemical and Ufaorgsintez, dropping from 32,300 tons to 31,400 tons and dropping from 40,800 tons to 22,200 tons respectively. Phenol quotes on the domestic market are currently fixed at 48,300-55,000 roubles per ton, including VAT (in the Volga Federal District).

In September, phenol prices rose on the domestic market due to higher costs of benzene combined with the exchange rate. At the end of August, repair work began at the phenol and acetone production unit of Ufaorgsintez, which is scheduled to last until the end of September.

Russian Market Phenol Sales by Supplier (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Omsk Kaucuk	15.6	0.0
Novokuibyshevsk Petrochemical	31.4	32.3
Kazanorgsintez	0.1	2.2
Ufaorgsintez	22.2	40.8
Total	69.3	75.3

Russian Synthetic & Natural Rubber Market (unit-kilo tons)		
	Jan-Jul 20	Jan-Jul 19
Production	861.0	882.0
Exports	521.1	593.1
Imports	112.0	129.9
Supply/Demand Balance	451.9	418.8

The manufacture of tyres, and rubber tubes for seven months of 2020 amounted to 28.4 million units, which is 15.1% down compared to 2019. At the same time overall consumption on the domestic market has risen this year due largely to the changes at Togliattikaucuk and revival of rubber usage in Tatarstan.

Domestic consumers of toluene are fairly widely dispersed both geographically and on average are small in volume. The largest buyer usually is TAIF in Tatarstan which buys toluene from Omsk. Russian exports of toluene remain relatively small, amounting to 2,540 tons in the first half of 2020.

Russian phenol market, Jan-Jul 2020

Russian phenol production rose in the first seven months to 148,100 tons from 130,400 tons in the same period in 2019. Novokuibyshevsk Petrochemical reduced production from 40,700 tons to 39,400 tons whilst Ufaorgsintez reduced production from 44,600 tons to 38,500 tons. Kazanorgsintez produced 47,000 tons versus 45,200 tons. The significant difference came from Omsk Kaucuk which produced 23,200 tons in the first seven months this year.

Export activity increased in the first seven months rose to 24,000 tons of phenol against 11,900 tons in the same period last year. Omsk Kaucuk exported 5,500 tons which compensated for the absence of exports from Kazanorgsintez which shipped 3,100 tons last year. Elsewhere Ufaorgsintez increased exports from 6,300 tons to 17,200 tons. The major destinations for Russian phenol exports this year have included Poland, taking 24% of deliveries, followed by Belarus and Slovakia each with 15%.

Sales of phenol on the Russian domestic market amounted to 69,300 tons in the first seven months in 2020 against 75,300 tons in the same period in 2019. The two largest suppliers

Synthetic rubber

Russian rubber market balance Jan-Jul 2020

Although market conditions remain challenging synthetic rubber production in Russia showed a more positive trend in July from recent months, rising 28.7% against July 2019. This has helped reduced the gap in the cumulative total for seven months of 2020 to 861,000 tons against 882,000 tons in the first seven months last year.

Domestic synthetic rubber producers have been affected this year lower demand resulting from the coronavirus, whilst on the supply side butadiene feedstocks have been tighter due to lower availability from SIBUR-Tobolsk. Around 120 tyre plants from March to May were declared idle during the main lockdown period for most countries. In terms of overall trade patterns for all types of rubber exports were affected from COVID-19 in the months of April and May and have shown a recovery in June and July.

Russian Rubber & Rubber Product Trade (\$ million)		
Month	Export	Import
Jul 2019	265.106	379.519
Aug 2019	285.954	371.766
Sep 2019	260.410	321.325
Oct 2019	262.488	326.063
Nov 2019	237.263	292.351
Dec 2019	217.116	292.805
Jan 2020	187.322	306.351
Feb 2020	220.210	306.331
Mar 2020	218.155	337.183
Apr 2020	137.922	268.914
May 2020	143.726	242.432
Jun 2020	220.539	289.818
Jul 2020	224.000	303.000

Russian synthetic rubber exports, Jan-Jul 2020

Russian exports of synthetic rubber amounted to 521,100 tons in the first seven months in 2020 against 593,000 tons in the same period last year. Revenues from exports dropped sharply from \$958 million to \$667.3 million, with average prices dropping from \$1612 per ton to \$1281 per ton. Although export shipments increased in volume in June and July prices per ton dropped across the board affecting particularly isoprene, butadiene, butyl and halogenated butyl rubber.

China accounted for 21.5% of Russian exports of synthetic rubber in the first seven months in 2020 followed by India with 10.8% and Poland with 9.7%. Russian exports to China covered most rubber categories including isoprene, butyl and halogenated, and butadiene.

The highest value product category exported from Russia is halogenated butyl rubber (HBR) where exports totalled 64,100 tons in January to July 2020 at a total value of \$132

million. The largest product in terms of volume was polybutadiene which dropped from 137,700 tons to 122,400 tons followed by isoprene which dropped from 158,800 tons to 113,300 tons. The fall in isoprene rubber exports was partly due to the increase in domestic consumption. NBR exports totalled 18,600 tons in the first seven months against 20,500 tons in the same period last year. Around 70% of NBR production (44,700 tons in 2019) is exported, most of which goes to China from the Krasnoyarsk plant. More detail of volumes and revenues for rubber categories are available on the CIREC website or by contacting us at support@cirec.net.

Russian Synthetic Rubber Exports (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
E-SBR	19.4	23.1
Block	34.8	23.3
SSBR	3.4	8.1
SBR	68.5	45.3
Polybutadiene	122.4	137.7
Butyl rubber	69.6	75.4
Halogenated butyl	64.1	79.7
NBR	18.6	20.5
Isoprene	113.3	158.8
Others	7.0	21.6
Total	521.1	593.0

Kazan Synthetic Rubber Plant revived production

The Kazan Synthetic Rubber Plant is close to restoring all of its production of products for the defence industry. In 2019 KZSK was declared bankrupt after which production was stopped and there were doubtful prospects for a restart. Since the agreement was reached between the government of the Republic of Tatarstan, the bankruptcy commissioner and the Industrial Technologies holding to restore production activities. KZSK is the only producer of polysulphide oligomers in the country, as well as special brands of rubbers for the needs of the state defence order. The plant has operated since 1936 and produced 160 items for 5,000

consumers in Russia and abroad.

Nizhnekamskneftekhim rubber exports Jan-Jul 2020

Nizhnekamskneftekhim's exports of synthetic rubbers amounted to 291,100 tons in the first seven months in 2020 against 344,100 tons in the same period last year. Isoprene rubber exports amounted

to 92,100 tons in the period January to July 2020 against 124,800 tons last year whilst exports of halogenated butyl rubber amounted to 64,100 tons against 80,600 tons.

Nizhnekamskneftekhim rubber exports (unit-kilo tons)		
Category	Jan-Jul 20	Jan-Jul 19
Isoprene Rubber	92.1	124.8
Butyl Rubber	43.8	38.6
HBR	64.1	80.6
Polybutadiene	85.2	100.1
Others	5.9	0.4
Total	291.1	344.1

In 2019, Nizhnekamskneftekhim completed the reconstruction of the isoprene-monomer plant and increased capacity to 333,000 tpa. Methanol is now important for reducing costs of isoprene monomer production and the company is currently constructing its own plant of 500,000 tpa. By producing its own methanol, Nizhnekamskneftekhim will replace the purchased raw materials, thereby closing the entire raw material cycle for the production of synthetic isoprene rubber (SKI).

Togliattikaucuk rubber exports Jan-Jul 2020

In the first seven months in 2020 Togliattikaucuk reduced exports of synthetic rubber to 49,800 tons against 86,200 tons in the same period in 2019. Isoprene rubber saw the largest drop from 20,200 tons down to 4,400 tons as domestic requirements have risen.

Togliattikaucuk Rubber Exports (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Isoprene Rubber	4.4	20.2
Butyl Rubber	26.0	38.0
SBR	19.2	27.5
Others	0.2	0.5
Total	49.8	86.2

The shift in sales direction, whereby exports were moved to domestic sales, took place after Tatneft acquired the Togliatti rubber assets from SIBUR in late 2019. Apart from producing rubber for the tyre plants in Tatarstan Togliattikaucuk has produced more than 3,000 tons of SKI-3 isoprene rubber this

year for the needs of the Federal Reserve.

Methanol

Russian Methanol Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Shchekinoazot	565.8	555.0
Sibmetakhim	523.0	550.8
Metafrax	728.3	713.3
Akron	52.8	60.1
Azot, Novomoskovsk	97.8	146.9
Angarsk Petrochemical	35.5	24.6
Azot, Nevinnomyssk	67.6	71.5
Tomet	542.1	447.7
Ammoni	47.3	100.8
Totals	2660.1	2670.7

Russian methanol production Jan-Jul 2020

Russia produced 2.660 million tons of methanol in the first seven months in 2020 against 2.670 million tons in the same period in 2019. Metafrax produced 728,300 tons against 713,300 tons whilst Sibmetakhim at Tomsk reduced production from 550,800 tons to 247,000 tons. Tomet at Togliatti increased production to 542,100 tons from 447,700 tons, whilst Shchekinoazot produced 555,000 tons against 565,800 tons.

Metafrax shutdown and integration of AKM complex

Metafrax completed a major shutdown in September at its methanol production facility during which measures were taken to integrate the AKM complex (ammonia-urea-melamine) which is under construction. The first stage of the shutdown included the repair on the methanol reforming unit on 16 August followed by setting the partial oxidation on 6 September. An important stage involved connection of the AKM complex into the main gas pipeline.

For the methanol unit the shutdown included an examination of the equipment including pipelines, steam pipelines, and also the fleet of tanks. A large amount of work was carried out at the natural gas partial oxidation unit. Methanol capacity at Gubakha will remain unchanged after these measures at 3,400 tons per day, although production efficiency will increase.

Regarding the AKM complex, the melamine pump station is the most sophisticated facility included in the construction. The design capacity of the plants under construction includes 562,000 tpa of urea, 298,000 tpa of ammonia and 80,000 tpa of melamine. Total investment in the construction of the complex is estimated at €950 million. The contract with Swiss Casale SA, which is an EP contractor for the project, is worth €388 million.

Russian Methanol Exports (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Azot, Nevinnomyssk	0.0	0.0
Azot Novomoskovsk	32.8	43.5
Akron	7.1	3.8
Metafrax	321.3	275.8
Sibmetakhim	292.5	280.4
Tomet	226.2	206.2
Shchekinoazot	428.1	444.4
Ammoni	0.0	13.5
Total	1308.0	1267.5

Russian methanol export sales, Jan-Jul 2020

Russian companies increased their methanol shipments for export in the first seven months to 1.308 million tons against 1.268 million tons in the same period in 2019. Shipments to foreign markets by Shchekinoazot dropped from 444,400 tons in the first seven months in 2019 to 428,100 tons in the same period in 2020. Tomet increased exports to 226,200 tons versus 206,200 tons in the same period in 2019.

Revenues from methanol exports dropped from \$348 million in the first seven months last year to \$236 million this year. Finland accounted for 41.7% of Russian methanol export shipments in the period January to July 2020, followed by Poland with 18.9% and Slovakia 7.9%.

Russian Methanol Domestic Sales (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Azot Nevinnomyssk	11.6	18.5
Azot Novomoskovsk	66.1	90.3
Metafrax	184.3	147.7
Sibmetakhim	180.7	220.2
Tomet	239.9	222.6
Shchekinoazot	88.1	79.1
Ammoni (Mendeleevsk)	25.2	57.7
Total	795.9	836.2

Russian methanol domestic sales, Jan-Jul 2020

Due to planned shutdowns during the third quarter the stocks of methanol in the warehouses increased in August by 32% against July from 90,600 tons to 119,700 tons. From 1 August Sibmetakhim started storing product to cover its shutdown in September. Metafrax also increased the volume of methanol reserves in warehouses by more than 70% to cover its own shutdown. Furthermore, compared to the beginning of July the stocks of methanol in the warehouses of Ammoni rose in August by almost 75% and Shchekinoazot by almost 50%.

Russian Methanol Consumption (unit-kilo tons)		
Consumer	Jan-Jul 20	Jan-Jul 19
Nizhnekamskneftekhim	111.1	137.5
Togliattikaucuk	87.1	93.0
Uralorgsintez	36.7	51.3
SIBUR-Khimprom	10.7	13.6
SIBUR-Tobolsk	24.7	21.0
Ektos-Volga	26.2	33.0
Omsk Kaucuk	47.2	56.9
Novokuibyshevsk NPZ	27.3	30.4
Uralkhimplast	11.1	26.6
Slavneft-Yanos	5.8	9.1
Metadynea	40.0	42.8
Kronospan	47.8	61.9
Gazprom	74.7	92.6
Khimsintez	5.5	11.7
Volzhsky Orgsintez	5.4	6.2
Others	234.7	128.6
Total	795.9	836.2

Export of methanol is still less profitable for domestic producers than selling the product on the domestic market. Shchekinoazot sells methanol on the domestic market currently in the range 16,000-22,000 roubles per ton whilst Tomet charges 14,500-17,600 roubles. Evrokhim still offers the lowest price range of 13,000-14,000 roubles per ton including VAT, but still is profitable.

The domestic market saw merchant sales amounting to 111,100 tons in July against 108,200 tons in June and 80,100 tons in May. Captive internal processing of methanol by producers also showed an increase. Overall merchant deliveries of methanol to the domestic market totalled 795,900 tons in the first seven months in 2020 against 836,200 tons in the same period in 2019. Russian producers of MTBE, rubbers and synthetic resins have increased methanol purchases helping to take the pressure off export activity.

In the first seven months this year Sibmetakhim reduced sales on the domestic merchant market from 220,200 tons to 180,700 tons. Increases were however noted by Metafrax, which increased merchant sales from 147,700 tons in January to July 2019 to 184,300 tons this year, and Tomet which increased from 222,600 tons to 239,900 tons. Most consumers purchased less methanol in the first seven months in 2020 than in 2019. Nizhnekamskneftekhim reduced purchases from 137,500 tons in January to July 2019 to 111,100 tons this year whilst Togliattikaucuk reduced purchases from 93,000 tons to 87,100 tons. MTBE

producers mostly reduced inward shipments with the exception of SIBUR-Tobolsk which increased purchases from 21,000 tons to 24,700 tons.

In the formaldehyde sector the Kronospan plant at Yegorevsk in the Moscow region reduced purchases of methanol in the first seven months to 47,800 tons against 61,900 tons in 2019, whilst Metadynea dropped from 42,800 tons to 40,000 tons and Uralkhimplast from 26,600 tons to 11,100 tons. Despite the pandemic Metadynea managed to overfulfill the plans in terms of net profit by 70% in the first half of 2020. In the third quarter, the company is seeing an increase in sales due to renewed activity in the construction sector although resin consumption is expected to fall in the plywood sector by the end of the year.

SAFMAR methanol project

The SAFMAR Group was planning to start construction of its methanol project at Ust Luga at some stage in 2020, but due to COVID-19 has been forced to delay foundations until at least 2021. SAFMAR wants to



construct a methanol plant in the northernmost part of the Ust Luga port in a separate cargo area, where the transshipment complex of Terminal Novaya Gavan is located. Currently Terminal Novaya Gavan handles only general cargo, but by the time the plant is put into operation by 2024-2025, SAFMAR hopes that there should be facilities for sea transshipment of methanol. The project comprises €1 billion of investment and a capacity of 1.8 million tpa of methanol. Scepticism surrounds the SAFMAR project, as with other methanol projects for Ust Luga. Terminal facilities are critical in order to be capable of transshipping methanol.

Prospects for other methanol projects for Ust Luga

Besides the SAFMAR plant, three other large-scale methanol projects have been previously announced on locations close to the Ust Luga port, all of which appear to have been delayed by the COVID-19. Proposed initial completion dates of 2023 look unrealistic for any of these projects and 2024 is possibly the earliest possible start-up date. The Baltic Gas Chemical Company has outlined plans to build a complex for the production and transshipment of methanol with a capacity of 1.7 million tpa with an investment of \$1.5 billion. This project shows no sign of progress at the moment.

Another project involved Ruskhimkom which wants to build a methanol plant and the sea terminal for its transshipment. At the current time this project appears dead due to a change in direction in the Indiga Group which owns Ruskhimkom. The plant was to be located in the Alekseevskaya industrial zone which is 48 km from the port, and methanol was to be sent to the terminal by pipeline.

Similar plans were announced by Evrokhim which wants to build a plant at Kingisepp in the Luga Bay to produce 1.7 million tpa of methanol. Investment in the project was estimated at \$2.5 billion. The products will be exported through the Evrokhim terminal, which is currently being built in the port. Due to the size of

Skovorodino methanol project-Johnson Matthey

The Technolizing company (part of the ESN group) has selected Johnson Matthey as the licensor and developer of the basic design for a new methanol production at Skovorodino (Amur Region). According to Johnson Matthey, the company will provide a technology license for the production of methanol with a capacity of 3,000 tons per day. This technology will be applied in Russia for the first time. Johnson Matthey will also be responsible for the basic engineering of the project, the supply of a piece of equipment and a catalyst for methanol synthesis.

Evrokhim and other chemical investments in the Ust Luga area this project may have better chances of proceeding to the construction stage.

Vysotsk methanol project-contractor selected

For the methanol project at Vysotsk, NPK Volga-Avtomatika from Tatarstan was selected as the contractor for the design in August and survey work which should be completed the work by 31 December 2021. A complex for the production and sea transshipment of methanol is planned to be built by OOO RPK-Vysotsk Lukoil-II. The project

operator is OOO Gaz-Sintez. The design capacity of the methanol plant is 1 million tpa of methanol based on investments of \$1.5 billion. In addition to methanol, Lukoil intends to tranship about 160,000 tpa of acrylonitrile at the future complex, which the company now exports through the port of Ventspils in Latvia.

Organic chemicals & other products

Russian N-Butanol Production (unit-kilo tons)		
	Jan-Jul 20	Jan-Jul 19
Angarsk Petrochemical Company	15.0	13.6
Azot, Nevinnomyssk	9.4	8.2
Gazprom neftekhim Salavat	34.0	34.7
SIBUR-Khimprom, Perm	17.3	22.5
Total	75.8	79.1
Russian Isobutanols Production (unit-kilo tons)		
	Jan-Jul 20	Jan-Jul 19
Angarsk Petrochemical Company	10.9	8.1
Gazprom neftekhim Salavat	25.5	20.0
SIBUR-Khimprom, Perm	29.7	31.4
Total	66.0	59.5

in the same period in 2019. SIBUR-Khimprom decreased shipments from 15,400 tons to 14,800 tons and Angarsk Petrochemical increased from 10,000 tons to 14,800 tons. The two largest domestic purchasers in January to July 2020 were Dmitrievsky Chemical Plant with 12,400 tons, versus 10,500 tons last year, and Aktilat at Dzerzhinsk with 9,800 tons against 9,700 tons.

Russian Butanol Domestic Sales (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Gazprom n Salavat	3.3	3.5
SIBUR-Khimprom	14.8	15.4
Angarsk Polymer Plant	14.8	10.0
Azot Nevinnomyssk	1.5	1.1
Totals	34.5	30.0

N-butanol availability in the Russian market is affected by processing by both Gazprom neftekhim Salavat and SIBUR-Khimprom. Gazprom neftekhim Salavat uses a significant part of its own n-butanol to produce butyl acrylate, whilst SIBUR uses it also for internal processing. Angarsk Petrochemical is the only Russian producer with available product where there is no internal demand.

Russian acetone market, Jan-Jul 2020

Russian acetone prices have followed trends in Europe where supply has helped upward pressure. Ufaorgsintez started a scheduled shutdown at the start of September which will be completed on 29 September. Other producers are also facing tight supply with Omsk Kaucuk working partially on imported cumene. In September, Omsk Kaucuk has no plans to supply acetone to the market, as it will accumulate raw materials for launching its own production of isopropanol. Acetone prices from Omsk could reach 100,000 roubles per ton by the end of September.

Russian Butanol Consumption (unit-kilo tons)		
Consumer	Jan-Jul 20	Jan-Jul 19
Aktilat	9.8	9.7
Dmitrievsky Chemical	12.4	10.5
Kazanorgsintez	0.0	0.3
Volzhskiy Orgsintez	5.1	5.7
Roshalsky Plant of Plasticizers	0.9	0.3
Others	6.3	3.3
Total	34.5	29.8

Russian Acetone Production (unit-kilo tons)		
Producer	Jan-Jul 20	Jan-Jul 19
Ufaorgsintez	24.2	19.9
Kazanorgsintez	29.8	38.4
Novokuibyshevsk Petrochemical	24.5	16.6
Omsk Kaucuk	13.4	0.0
Total	91.9	74.9

Acetone production in Russia totalled 91,900 tons in the first seven months in 2020 against 74,900 tons in the same period in 2019. Omsk Kaucuk added 13,400 tons to the market from its new plant, whilst of the other three producers only Kazanorgsintez reduced production dropping from 38,400 tons in January to July 2019 to 29,800 tons in the same period this year.

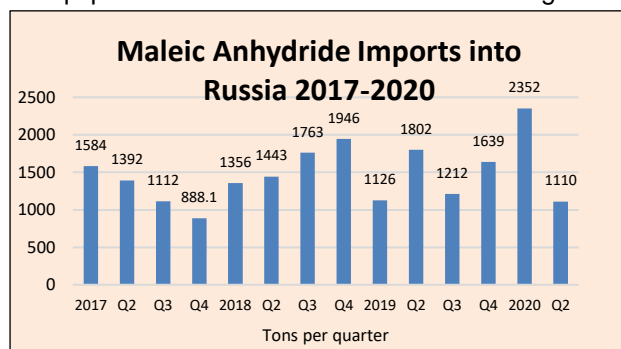
Sintez Oka-ethanolamines project

Sintez Oka's project at Dzerzhinsk for the production of alkyl ethanolamines: including methyl-diethanolamine (MDEA) and dimethylethanolamine (DMEA), with a total capacity of 15,000 tpa

has successfully passed public hearings. The joint fund of Rusnano and Sintez OKA, created at the end of 2018, will invest up to 7 billion roubles in chemical and petrochemical projects in Russia. The first project of the fund will involve the creation of MDEA and DMEA production facilities at Dzerzhinsk. The feasibility study of the project has been completed and the project documentation is being developed. The plant planned for construction is capable of producing, in an alternating mode, 17,000 tpa of DMEA or 14,000 tpa of MDEA.

Maleic anhydride project Tobolsk

For the maleic anhydride project under construction by SIBUR at Tobolsk a number of important pieces of equipment were delivered to the site in August. Almost 80% of the equipment is domestic, and the



remainder sourced from Germany. The main element of the plant under construction which is the heat exchanger weighing over 600 tons was made in Germany and is delivered by waterway to Tobolsk. The project provides for the immersion of 7,000 piles, 98% of the piles have already been immersed in the base of the plant.

Completion of equipment deliveries is scheduled for 2020 with construction targeted for completion in 2021. The consumption of maleic anhydride in Russia is small and currently

around 6,000 tpa, all of which is imported. The capacity of the new plant is 45,000 tpa which clearly leaves a large excess over domestic consumption and thus export activity will be required to sustain production rates close to full capacity. Butane is being used by SIBUR for the maleic anhydride plant and the technology being used is Conser from Italy. The finished products at the plant will be produced in both liquid and solid form. Tatarstan is also preparing to construct a maleic anhydride plant and has shown any indication that it will suspend the project.

Russian TDI Imports (unit-kilo tons)		
Country	Jan-Jul 20	Jan-Jul 19
Belgium	0.2	0.5
China	1.5	1.4
Germany	8.9	5.9
Hungary	6.2	5.6
Japan	0.7	1.0
Netherlands	0.9	0.9
Saudi Arabia	3.7	6.3
South Korea	1.8	0.5
US	1.1	5.8
Others	1.5	0.4
Total	26.5	28.3

Russian TDI imports, Jan-Jul 2020

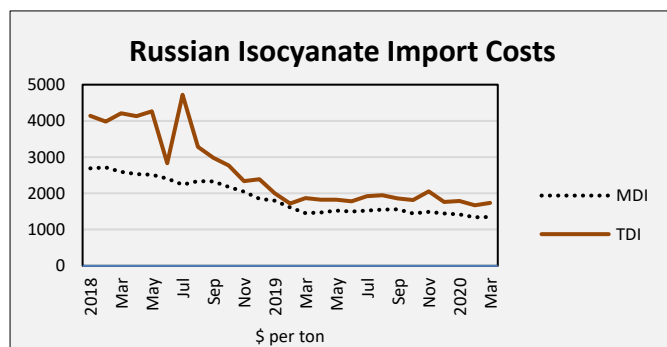
Russian TDI imports amounted to 26,500 tons in the first seven months in 2020 against 28,300 tons in the same period in 2019. Germany increased shipments from 5,900 tons in January to July 2019 to 8,900 tons in 2020 with Hungary rising from 5,600 tons to 6,200 tons. Saudi Arabia supplied 3,700 tons to the Russian market, down from 6,300 tons in the same period in 2019.

The main regions inside Russia accounting for TDI purchases, include Moscow and the Moscow area taking 46.2% of shipments in the first seven months in 2020, followed by Tatarstan with 14.6%. Germany is the main supplier of TDI to Tatarstan where it accounted for 38.5% in January to July 2020, whereas in the Moscow region imports from Germany follow shipments from the US, South Korea and Saudi Arabia.

Average TDI prices for the first seven months amounted to \$1687 per ton against \$1865 for the whole of 2019. In August-September of this year, there has been an increase in prices on the world market of isocyanates. This is due to the fact that several of the largest producers such as BorsodChem, Wanhua, BASF) suspended production due to planned technical work, and a force majeure situation occurred at the Covestro plant which also led to a halt in production. As a result, there was a shortage of isocyanates in the world, which led to an increase in prices by about 20%.

Tatarstan has reiterated its aim to construct an isocyanate plant as yet to establish a formative schedule. Market players in Russia believe that the creation of such a complex is impossible without government support. In the last decade, about a dozen chemical enterprises have tried to start the domestic production of isocyanates. Most of the projects remain paper-based and the government has shown only limited

interest. Tatarstan may have made more progress on isocyanates against other project groups or companies as it tries to develop an innovative strategy on petrochemicals but is yet to be specific.



Exports of polyurethanes from Russia amounted to 3,546 tons in the first seven months and was worth \$10.205 million against imports of 27,068 tons for a total value of \$85.750 million. Although exports declined only slightly, imports of polyurethanes dropped significantly from 48,170 tons in January to July 2019 for a value of \$162.3 million. FomLine, the largest Russian manufacturer of flexible polyurethane foam, has put into operation a new industrial line for the production of polyurethane mattresses.

Investment into the new line amounted to 1.5 billion roubles.

Russian Imports of MDI (unit-kilo tons)		
Country	Jan-Jul 20	Jan-Jul 19
Belgium	8.3	9.8
China	18.1	20.6
Germany	11.1	9.2
Hungary	2.1	4.4
Japan	1.0	1.3
Netherlands	15.6	19.1
Saudi Arabia	24.4	22.3
South Korea	0.5	1.4
Others	0.6	1.6
Total	81.2	89.4

Russian MDI imports, Jan-Jul 2020

MDI imports into the Russian market amounted to 81,200 tons in the first seven months this year against 89,400 tons in January to July 2019. Import costs for MDI in the first seven months totalled \$112.7 million versus \$137.7 million in the first seven months in 2019, with average prices dropping to \$1369 per ton versus \$1556 per ton in the same period in 2019. Saudi Arabia was the largest supplier this year as in 2019, increasing exports to Russia from 22,300 tons to 24,400 tons.

Industrial gases Pskov

Elme Messer Rus plans to launch an air separation unit with a capacity of more than 90,000 tpa in the Moglino SEZ (Pskov region) in 2020. The unit will produce technical gases: oxygen (99.95%), nitrogen and argon (more than 99.999% purity). This plant will be the largest in North-West Russia for the production of

liquefied industrial, food and medical gases in the. The aim of the project is to reduce the dependence on imports from the EU. Moreover, more than 35% of products are planned to be exported to Belarus and EU countries such as Latvia and Lithuania. Elme Messer Gas is the leading gas company in the Baltic region founded in 1999 as a joint venture.

Ukraine

Ukrainian polymer imports & production, Jan-Jul 2020

Ukrainian Polypropylene Imports (unit-kilo tons)		
Category	Jan-Jul 20	Jan-Jul 19
Homo	59.0	61.5
Block	7.1	7.5
Random	8.3	8.9
Other	1.1	1.1
Total	75.5	79.0

Polypropylene imports into Ukraine amounted to 75,600 tons in the first seven months against 79,000 tons in the same period in 2019. Homopolymer imports dropped from 61,500 tons against 59,100 tons, block copolymer imports dropped from 7,500 tons to 7,100 tons and random copolymer imports dropped from 8,900 tons to 8,300 tons.

The total volume of polyethylene imports to the Ukrainian market increased to 156,300 tons in the first eight months against 154,400 tons in January to July 2019. Polyethylene imports cover HDPE despite the availability of domestic production, in addition to LDPE

and LLDPE.

Karpatneftekhim, Jan-Jul 2020

Karpatneftekhim exported 60,900 tons of propylene in the first seven months in 2020 against 45,900 tons in the same period in 2019. Benzene exports dropped from 52,400 tons to 38,000 tons. Ukraine exported

5,000 tons of benzene to Spain in August. The batch was sold to a Spanish styrene producer at Tarragona. Another 5,000 tons was shipped to Spain in June, whilst in mid-September another 5,500 tons was shipped from the Chornomorsk port to the Amsterdam-Rotterdam-Antwerp region. In early September, Karpatneftekhim resumed deliveries of benzene to the Russian market after maintenance and the first lots were shipped to Kazanorgsintez. In addition, the product is expected to be delivered to Kuibyshevazot.

Karpatneftekhim Petrochemical Exports (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Propylene	60.9	45.9
Benzene	38.0	52.4

Kazanorgsintez has applied to the Russian government with a request to ban the import of HDPE from Ukraine to Russia. The aim of the proposals is to apply mirror measures in relation to the actions of the Ukrainian government and supplement the list of goods prohibited from import from Ukraine with polyethylene according to HS code 3901209009. In 2019, supplies of Ukrainian HDPE to Russia tripled to 27,300 tons for \$29.6 million but has dropped sharply in 2020.

Belarus

Belarussian petrochemicals Jan-Jul 2020

In the first seven months in 2020 ethylene and propylene production at Polymir both rose slightly against the same period in 2019, rising from 50,400 tons to 54,800 tons and from 31,200 tons to 34,100 tons. Benzene production has also fallen this year partly due to lower caprolactam production. Recent political developments have exacerbated weakness on the domestic economy thus affecting chemical production.

Belarussian Chemical Production (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Ethylene	54.8	50.4
Propylene	34.1	31.2
Benzene	52.7	62.1
Caprolactam	36.0	69.8
Orthoxylene	12.9	3.5
Paraxylene	33.6	6.0
Methanol	34.7	48.7

Naftan and Mozyr refineries now appear to be operating at full capacity after strike action was proposed in August. At the same time, workers and the Naftan trade union put forward protest demands, clearly dissatisfied with the decision of President Lukashenko to remain in office after the recent election.

Naftan intends to put out 5,000 tons of C4s to tender on 24 September, produced by the Polymir plant, with delivery in October 2020.

Belarussian Polymer Imports (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
PVC	26.8	23.3
Polypropylene	65.7	66.7
LDPE	27.1	28.8
HDPE	37.9	37.7
Polystyrene	7.1	10.5

Belarussian polymer trade, Jan-Jul 2020

Polypropylene imports into Belarus decreased by 3% in the first seven months and amounted to 62,800 tons against 64,600 tons. Demand increased for propylene homopolymer (PP-homo), while the demand for propylene copolymers decreased. Total supplies of PP-homo reached 45,900 tons, which is 7% more than in 2019, whilst imports of copolymers dropped 17% to 16,900 tons.

Imports of PVC to Belarus amounted to 26,800 tons in the first seven months, which is 17% more than in the same period of 2019. The bulk of purchases came from Russia accounting for 83% of shipments. The second and third places in terms of supplies, approximately equal to 8% and 6%, are occupied by manufacturers from Germany and Ukraine. In the polyethylene sector, LDPE imports into Belarus dropped from 28,800 tons the first seven months in 2019 to 27,100 tons whilst HDPE imports rose from 37,725 tons to 37,908 tons.

Polyethylene exports from Belarus amounted to 61,446 tons in the first seven months against 60,432 tons in January to July 2019. Belarussian exports of polyamide amounted to 17,778 tons in the first seven months in 2020 at a price of \$1,514 per ton against 37,264 tons in the same seven months in 2019 at a price of \$1,788 per ton. Due to the fall in both volumes and prices, revenues dropped from \$66.6 million to \$26.9

million. The main reason for the fall in exports was the reduction in shipments to China from 15,000 tons January to July 2019 to 3,180 tons this year.

Belarussian PTA Imports (kilo tons)		
Country	Jan-Jul 20	Jan-Jul 19
South Korea	17.5	7.5
Portugal	3.2	5.0
Poland	18.8	19.2
Turkey	0.0	1.0
Total	39.4	32.9

18,763 tons against 19,172 tons last year, whilst Portugal shipped 3,161 tons in the first seven months against 5,021 tons.

Belarussian PTA imports Jan-Jul 2020

PTA imports into Belarus totalled 39,431 tons in the first seven months in 2020 versus 32,867 tons in the same period in 2019. Average prices dropped from \$912 per ton in January to July 2019 to \$673 in 2020, and even despite higher volumes meant total import costs dropped from \$30.0 million to \$26.7 million.

Imports of PTA from South Korea increased to 17,508 tons in the first seven months from 7,500 tons, with average prices dropping from \$983 to \$668. Poland delivered shipments of PTA to Belarus of

Belarussian Organic Chemical Exports (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Acrylonitrile	18.1	24.5
Melamine	3.4	5.5
Caprolactam	2.4	6.0
Phthalic anhydride	17.9	22.2
Methanol	8.2	10.7

2019, with average export prices dropping from \$915 per ton to \$660. Methanol exports from Belarus dropped from 10,745 tons in the first seven months quarter last year to 8,200 tons in 2020. Average export

Belarussian Methanol Market (unit-kilo tons)		
	Jan-Jul 20	Jan-Jul 19
Production	34.7	48.7
Exports	8.2	10.7
Imports	31.7	28.6
Balance	58.2	66.6

Belarussian chemical trade, Jan-Jul 2020

Benzene exports from Belarus jumped from 1,190 tons in the first seven months in 2019 to 25,478 tons this year, with prices dropping from \$584 to \$203 per ton. Acrylonitrile export volumes from Belarus dropped in the first seven months to 18,122 tons against 24,518 tons in the same period in 2019. Average prices dropped from \$1380 per ton to \$899 per ton.

Phthalic anhydride exports from Belarus totalled 17,902 tons in the first seven months against 22,300 tons in same period in 2019, with average export prices dropping from \$299 per ton in 2019 to \$229 per ton in 2020, whilst import costs dropped from \$311 per ton to \$144.

Methanol imports into Belarus amounted to 31,700 tons in the first seven months from 28,600 tons in January to July 2019. Isopropanol imports into Belarus jumped from 1,122 tons to 3,093 tons in the first seven months with prices rising from \$1,301 per ton to \$2,125 in 2020.

Belarussian MDI Imports (unit-kilo tons)		
Country	Jan-Jul 20	Jan-Jul 19
Russia	1.5	1.4
Belgium	0.3	3.0
Hungary	0.8	1.3
Germany	7.8	4.9
Saudi Arabia	0.9	1.0
Others	0.1	0.7
Total	11.3	12.3

863 tons.

Belarussian MDI imports, Jan-Jul 2020

Import deliveries of MDI into Belarus in 2020 amounted to 11,302 tons in the first seven months against 12,364 tons in the same period in 2019, with average prices per ton dropping from \$1606 to \$1330. Germany was the largest supplier, increasing shipments from 4,935 tons at \$1580 per ton up to 7,822 tons at a much-reduced price of \$1262 per ton. Imports from Belgium dropped from 3,046 tons to 256 tons in January to July 2020 whilst Saudi Arabia dropped from 1,049 tons to

Central Asia/Caucasus

SOCAR Methanol Jan-Jul 2020

In January-July this year, Azerbaijan exported 254,000 tons of methanol for \$25.4 million. During the reporting period, the share of methanol in the export of the non-oil sector amounted to 2.45%. The methanol plant is capable of producing 650-700,000 tpa. SOCAR Methanol predicts a total production of 480,000 tons of in 2020.

Kazakh polypropylene project at Atyrau

Kazakhstan Petrochemical Industries (KPI) has postponed the completion of polypropylene plant near Atyrau due to the Covid-19 pandemic. The 500,000 tpa plant was previously planned to be launched in August 2021. The plant is being constructed in the territory of the special economic zone "National Industrial

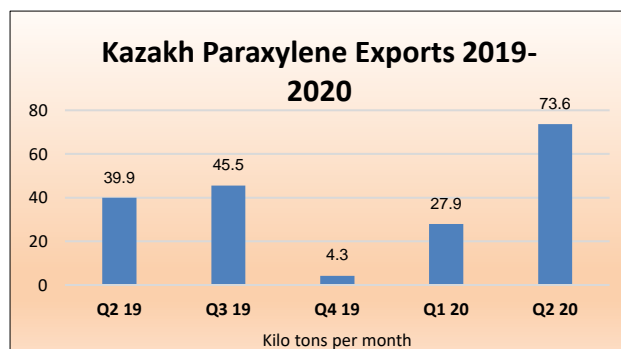
Air separation unit-Temirtau

The second air separation unit was launched at Temirtau in Kazakhstan. The main consumer of gases will be the steel production of ArcelorMittal Temirtau. The new unit will produce 24,500 cubic metres per hour of gaseous oxygen, as well as 28,000 cubic metres per hour of gaseous nitrogen required for the production of cast iron, steel and rolled metal.

Petrochemical Technopark" which is 33 kilometres from Atyrau, and 8-9 kilometres north of the Karabatan railway station. The largest producer of liquefied gas in Kazakhstan, Tengizchevroil, has been arranged as the propane supplier. At the start of September this project was estimated to have achieved 74% of the construction schedule

Kulevi terminal aromatics export

The Kulevi oil terminal located in Georgia, but belonging to SOCAR in Azerbaijan, started transshipment of benzene in the first half of 2020 after starting paraxylene shipments in 2019. Both benzene and paraxylene are delivered to Kulevi from the Atyrau refinery in Kazakhstan, which comprises a transport distance of 1,666 km. Paraxylene storage tanks at Kulevi are equipped with internal floating roofs which eliminate product vaporisation losses and minimize the related atmospheric emissions.



The terminal began receiving paraxylene at the end of 2018, which is the first time this product was transhipped in the Caucasus in large volumes. Benzene has become available this year due to lower demand in Russia from caprolactam producers. Another important factor for starting benzene shipments from Kulevi this year is the REACH approval received in April this year allowing shipments of aromatics the countries of the European Union.

Turkmenistan-polyolefin production 2020

In the first seven months in 2020 Turkmenistan produced 71,100 tons of polypropylene which was up by 40.5% over January to July 2019 and 137,400 tons of polyethylene which was 140% higher. The gas

Turkmenistan Polyolefin Production (unit-kilo tons)		
Product	Jan-Jul 20	Jan-Jul 19
Polyethylene	137.4	50.5
Polypropylene	71.1	50.6

chemical complex at Kiyanly in the Balkan velayat has managed to increase utilisation rates. In addition to export, the complex provides raw materials for domestic companies for the processing

of polyethylene and polypropylene including Türkmenenjam, Derýaplastik and Eşretlikenar.

The Kiyanly gas chemical complex was built by the Korean companies Hyundai Engineering and LG International Corp, as well as the Japanese company Toyo Engineering Corp. The complex is designed to produce 381,000 tpa of polyethylene and 81,000 tpa of polypropylene.

MTO project Uzbekistan

Progress on the MTO project in Uzbekistan has involved completion of the first preparatory phase, whilst at the same time attracting a majority investor through Jizzakh Petroleum. The capacity of the new plant is 500,000 tpa will process 1.5 billion cubic metres of natural gas per annum. The plant to construct an MTO olefin plant follows a decision from the Cabinet of Ministers of Uzbekistan in May 2019.

Jizzakh Petroleum was created in 2017 to boost the development of Uzbekistan's energy sector. Its main direction including the responsibility to undertake various large-scale exploration, construction and modernisation projects including the modernisation of the Fergana refinery.

The MTO plant's location in Uzbekistan was determined by the presence of competitive feedstock and energy supplies, suitable infrastructure, and proximity to key markets across Europe and Asia. Consulting and technical partners including IHS Markit, Nexant, and Amec Foster Wheeler (Wood) have concluded

feasibility studies on the project. The final stage of licensor selection is currently underway and once completed the next stage of the project, FEED, will begin.

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