Chemical Information Resources for East Europe and CIS

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

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Key points from Issue 359

Central European petrochemical markets

- Polimery Project extended by three months, although construction is progressing
- Lukoil appoints licensors for polypropylene project in Bulgaria
- Unipetrol takes full responsibility of new polyethylene plant at Litvinov
- Propylene imports into Czech Republic amounted to 26,400 tons in the first six months in 2020 against 19,100 tons in 2019, whilst benzene imports dropped from 47,400 tons to 43,400 tons.

Russian chemical production

- Russian chemical production rose 2.6% in the first eight months in 2020, driven mostly by an increase in polymers
- Ethylene production in Russia amounted to 2.781 million tons in January to August 2020 compared to 2.054 million tons in the same period in 2019
- Benzene production dropped in the first eight months from 879,000 tons to 910,200 tons
- Russia produced 2.987 million tons of methanol in the first eight months in 2020 against 2.957 million tons in same period in 2019

Russian chemical trade

- Russian polyethylene exports started to climb above imports in early part of 2020 following the start-up of the ZapSibNeftekhim plant at Tobolsk at the of 2019
- Propylene exports dropped in the first eight months from 50,000 tons last year to 33,700 tons
- Russian styrene exports dropped in the first eight months to 76,400 tons against 63,000 tons
- Russian exports of synthetic rubber amounted to 606,500 in the first eight months in 2020, down from 674,400 tons in the same period in 2019
- PTA imports into Russia totalled 196,200 tons in the first eight months in 2020 against 292,200 tons in the same period last year
- Export shipments of Russian methanol totalled 1.472 million tons in the period January to August 2020 against 1.405 million tons last year

Russian chemical projects

- The project for Amur Gas Chemical Complex receives approvals from state safety institution
- Nizhnekamskneftekhim receives important equipment for new 600 ktpa ethylene cracker
- Irkutsk Oil Company starts preparation of site for polyethylene plant
- Astrakhan polyethylene project of 300,000 tpa scheduled for completion in 2024
- Titan at Omsk close to completion of isopropanol plant
- Skovorodino methanol project receives funding support
- Lummus selected for ethylene expansion at Shurtan in Uzbekistan

CENTRAL & SOUTH EAST EUROPE

PKN Orlen Margins 2020				
	unit	*Q1*	*Q2*	*Q3*
Brent crude oil price	$/b	50.1	29.6	42.9
Model downstream margin	$/b	11.0	7.3	5.4
Model refining margin	$/b	5.8	3.3	1.1
Model petrochemical margin	€/ton	845	846	828

PKN Orlen margins and production

The model PKN Orlen downstream margin in September 2020 dropped to $5.4 from $5.7 per barrel in August. The price of Brent crude oil in the third quarter was $42.9 per barrel, compared to $29.6 in the second quarter. In the third quarter of 2020, Orlen's model downstream margin decreased to $5.4 per barrel down from $7.3 in the second quarter.

PKN Orlen Production (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Ethylene	331.1	345.8
Propylene	302.8	300.3
Butadiene	41.2	43.2
Toluene	1230.5	8.3
Phenol	29.0	30.5
Polyethylene	252.1	242.6
PVC	186.8	192.9
Polypropylene	232.3	229.3

The model petrochemical margin of the Orlen Group increased in September to €847 per ton, compared with €833 per ton in August. The model petrochemical margin in the third quarter of 2020 amounted to €828 per ton against €846 per ton in the previous quarter.

The Orlen Group reduced production of ethylene at Plock in the first eight months to 331,100 tons against 345,800 tons in the same period in 2019. Propylene production rose slightly from 300,300 tons to 302,800 tons. Although naphtha-based propylene production was down the metathesis plant helped compensate for the decline. In other parts of Orlen's Polish assets, polyethylene and polypropylene production under Basell Orlen Polyolefins rose slightly in January to August 2020 whilst PVC production at Anwil's Wloclawek plant dropped slightly.

PKN Orlen concluded a contract with Naftoremont-Naftobudowa, part of the Polimex Mostostal group, for the scheduled repair of the Olefin 2 installation at Płock. The contract value is zl 161 million net, of which the lump sum part will amount to zl 149.4 million net. The remuneration will be paid in parts, in connection with the material schedule of the work scopes. The contract is scheduled for completion on 30 September 2021. PKN Orlen started production of high purity isobutane at Plock in September.

Czech Polyethylene Trade (unit-kilo tons)						
Exports	Q1 19	Q2 19	Q3 19	Q4 19	Q1 20	Q2 20
LDPE	17.1	15.9	13.0	12.4	13.2	11.1
HDPE	58.2	57.6	48.8	41.3	51.7	82.0
EVA	0.2	0.3	0.5	0.5	0.9	0.6
Other	3.4	4.0	2.8	3.0	3.8	3.8
Total	79.0	77.8	65.1	57.2	69.6	97.6
Imports	Q1 19	Q2 19	Q3 19	Q4 19	Q1 20	Q2 20
LDPE	45.1	37.7	37.1	31.3	35.5	36.1
HDPE	31.9	29.1	28.6	26.0	32.5	26.9
EVA	2.2	2.2	2.3	2.2	2.8	1.5
Other	26.9	12.1	9.7	59.5	9.1	9.0
Total	106.1	81.0	77.7	119.0	79.9	73.5

In Lithuania, the Orlen Group is considering investments in Orlen Lietuva and building on the PPF splitter for propylene production launched in 2019.

Unipetrol-PE3 project

Unipetrol has taken on responsibility for the new polyethylene unit at Litvinov after project completion. The new polyethylene unit comprises a capacity of 270,000 tpa of state-of-the-art HDPE granulate. At the same time, the operation of the PE2 polyethylene unit with a capacity of 200,000 tpa will continue. The total production capacity of polyethylene the Litvinov petrochemical plant will thus increase from 320,000 tpa to 470,000 tpa. Extra consumption of ethylene at Litvinov may tighten the market balance affecting pipeline deliveries to Neratovice and Kralupy, although this position is yet to be clarified.

Modern production technology will also have less impact on the environment due to lower energy consumption and higher production stability. The investment will enable a deeper integration of petrochemical and refinery production not only within the Unipetrol Group itself, but also the PKN Orlen capital group.

MOL's Macro figures 2020				
	unit	Q1	Q2	Q3
Brent dated	$/b	50.3	29.2	43.0
MOL Group refinery margin	$/b	6.3	2.7	1.0
MOL + Slovnaft refinery margin	$/b	6.9	3.2	1.3
MOL Group petrochemicals margin	€/ton	383.7	430.7	336.5

MOL recent agreements

Whilst progressing with the flagship polyol project at Tiszaujvaros the contractor ThyssenKrupp has reported to MOL around 200 cases of COVID-19 being registered. Construction has not stopped, but the project schedule may face some sort of delay in completion times.

ABB has been awarded the contract by MOL to improve asset integrity across the group's downstream assets, through changing mindset, standardizing processes and software and ensuring integrity management is focused on the right equipment. The project assignment covers MOL's plants in Hungary, Slovakia, and Croatia, and will implement standardized asset integrity procedures in a move to drive production efficiency, improve safety and reduce risk. Through this contract, ABB aims to deliver €10 million of production improvements for MOL.

Meraxis and MOL Group are entering into a strategic partnership for recycled plastic manufacturing. They will be joining forces to forge ahead with the development and production of polyolefin re-compounds in the future. The aim is to develop and produce high-quality recycle-based compounds and then distribute them worldwide. Meraxis will supply MOL Group with high-quality, post-consumer recycled materials going forward to be blended with MOL virgin polyolefin resins. Distribution will be the responsibility of both partners in the future.

Polimery Police-project extension and capital

Grupa Azoty and Grupa Azoty Police announced on 7 October that the subsidiary Azoty Polyolefins had passed a resolution allowing for an extension of the Polimery Police's project schedule by three months. The annex also provides for the increase in the contractor's remuneration by €33.2 million. As both chemical companies emphasize, the resolution is conditional and will ultimately depend on obtaining the relevant approvals of Azoty Polyolefins corporate bodies and the conclusion of relevant annexes to the investment agreement and the shareholders agreement.

Lukoil-polypropylene project at Bourgas

Lukoil has decided on a licensor for the production of polypropylene at its complex at Bourgas in Bulgaria. The contract was signed with Lummus Technology's Novolen division. Lummus has agreed to provide licensed technology for a new polypropylene plant at the Bourgas site where capacity will be designed to produce 280,000 tpa. Also, within the framework of the contract, Lummus will carry out basic design, will train staff, will supply a catalyst for production. Lukoil has also chosen Lummus Technology's Novolen polypropylene production technology for the Kstovo petrochemical plant in Russia for a 500,000 tpa plant.

This will result in the changing the shareholding structure in Grupa Azoty Polyolefins. The original sponsors (Grupa Azoty and its subsidiaries) will jointly own 64.93%, including Grupa Azoty Police 34.41%; Grupa Lotos will own 17.3%, Hyundai 16.63% and KIND will own a 1.14% share.

Polish Propylene Imports (unit-kilo tons)		
Country	*Jan-Jun 20*	*Jan-Jun 19*
Austria	0.0	2.3
Czech Republic	4.1	0.9
Germany	1.1	6.0
Lithuania	13.4	5.7
Russia	10.8	19.3
Ukraine	39.9	31.0
Slovakia	0.0	0.0
Hungary	0.0	7.1
Others	1.0	0.0
Total	70.3	72.1

The construction of the Polimery Police project has achieved progress this year on all five sub-projects (PDH, PP, Handling and Storage Terminal, Interconnection and Auxiliary Installations and PP Logistics), whilst all key permits have been granted. Already the first elements of the main flyover connecting the PDH and PP installations has been completed. A reloading and storage terminal is also being built, including propane tanks, which are crucial for the plant's operation. Two cryogenic aboveground propane tanks with a capacity of 40,000 cubic metres will be built and one cryogenic above ground ethylene tank with a capacity of 12,000cubic metres.

Advanced work is also being carried out in the area of the transhipment and storage terminal (sea gas terminal), where the first hydrotechnical works related to the construction of the quay has started. Foundations for key installations are continued, including the extruder building for granulating polypropylene.

Polish PTA Exports (unit-kilo tons)		
Country	***Jan-Jun 20***	***Jan-Jun 19***
Belarus	15.9	16.5
Russia	3.0	0.0
Switzerland	4.0	2.5
Lithuania	6.1	3.0
Germany	147.4	169.6
Italy	1.8	1.5
Turkey	2.5	7.3
Others	8.3	6.5
Total	188.9	206.9

Polish PTA exports

Exports of PTA from Poland totalled 188,900 tons in the first half of 2020 against 206,900 tons in the same period last year. Germany is the main recipeient of Polish PTA exports from the Wloclawek plant taking 147,400 tons in January to June 2020 measured against 169,600 tons in January to June 2019. The only other country of significance is Belarus which took 15,900 tons of Polish PTA in the first half of 2020 against 16,500 tons last year.

PTA production at Wloclawek totalled 291,000 tons in the first half of 2020 against 274,000 tons in January to June 2019, and due to lower exports and increased imports indicates rising consumption in Poland. This is partly related to the production of PTA based plastcizers at Kedzierzyn-Kozle.

PCC Rokita-investments

PCC Rokita has concluded an agreement with the European Investment Bank to increase the financing, which was initially provided at the beginning of last year, to a total of €67.5 million. The funds obtained are to support the company's modernisation plans and the construction of an innovation and process scaling centre. The original loan from the European Investment Bank granted to PCC Rokita amounted to €45 million.

Polish TDI Imports (ktons)		
Country	**Jan-Jun 20**	**Jan-Jun 19**
Germany	14.6	14.8
Netherlands	5.2	2.7
Hungary	14.8	14.5
Saudi Arabia	2.9	0.0
Others	1.2	4.5
Total	38.7	36.5
Polish TDI Imports (€ million)		
Country	**Jan-Jun 20**	**Jan-Jun 19**
Germany	49.2	67.4
Netherlands	14.7	11.3
Hungary	45.6	86.3
Saudi Arabia	2.9	6.5
Others	11.9	25.4
Total	124.3	196.9

PCC Rokita is undertaking investments with an estimated total value of €110.5 million. These investments include the expansion and modernisation of a pilot plant installation for the development of polyols, a pilot installation for the production of phosphates and phosphites, and investments in electrolysis and propylene oxide. In 2019 PCC Rokita expanded its propylene storage base and expanded the electrolysis plant to increase production capacity. Other investments included the expansion of capacity for propylene oxide. In 2018 PCC increased the capacity of the monochloroacetic acid plant at Brzeg Dolny from 42,000 tpa to 50,000 tpa. The medium-term goal is to expand MCAA production up to 100,000 tpa.

The chlorine sector at Brzeg Dolny recorded lower profits in the first half of 2020 despite higher sales volumes. Lower profits were mainly due to the continued downward trend in alkali prices. The primary goal of the PCC Rokita Group is to balance the consumption of chlorine internally. Therefore, the group is carrying out a series of analyses aimed at the possibility of its development including deliveries to the complex of phosphorus chemistry and to PCC MCAA which produces monochloroacetic acid. At the same time, the Group strives to maintain cooperation with existing chlorine tankers and to acquire new, long-term contractors to diversify sales. Due to the high margins, the PCC Rokita is taking steps to intensify the sale of chlorine in small packages.

Czech Petrochemical Exports (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Ethylene	8.2	62.1
Propylene	5.1	7.0
Butadiene	0.0	3.8
Benzene	13.5	31.9
Toluene	4.5	7.3
Ethylbenzene	55.1	104.8

Czech petrochemical trade, Jan-Aug 2020

Ethylbenzene exports from the Czech Republic to Poland have been revived in July and August after the cessation of deliveries over the lockdown period.

Overall ethylbenzene shipments from Kralupy to Poland were down in the first eight months last year from 104,800 tons against 55,100 tons in January to August 2020. Benzene and ethylene exports were both down in the first eight months this year, dropping from 31,900 tons to 13,500 tons and from 62,100 tons to 8,200 tons respectively.

Czech Petrochemical Imports (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Ethylene	2.4	0.1
Propylene	35.6	23.6
Butadiene	42.1	14.7
Benzene	51.8	58.8
Toluene	3.6	0.6
Styrene	25.6	11.5

Regarding imports, propylene shipments into the Czech Republic increased in the first eight months from 23,600 tons last year to 35,600 tons. In January to August 2020 Germany supplied 20,656 tons of propylene to the Czech market, followed by Poland with 6,000 tons, Romania with 3,127 tons and Ukraine 2,125 tons.

Butadiene imports increased this year to 42,100 tons from 14,700 tons, with Germany providing 39,350 tons in January to August. Styrene imports increased from 11,500 tons to 25,600 tons this year. The Netherlands was the main supplier to the Czech Republic, providing 20,344 tons.

Czech chemical trade, Jan-Aug 2020

A total of 58,533 tons of methanol was imported into the Czech Republic in the first eight months versus 73,300 tons in the same period last year. The largest source of imports was from Russia supplying 24,300 tons against 42,900 tons in January to August 2019, whilst Poland shipped 23,800 tons up from 4,100 tons. Imports from Poland were mostly redirected from Russian imports. For isopropanol, imports into the Czech Republic rose from 2,323 tons in the first eight months in 2019 to 3,372 tons in the same period in 2020. The two largest suppliers were Germany and the Netherlands. Imports rose to meet the demand for sanitizer.

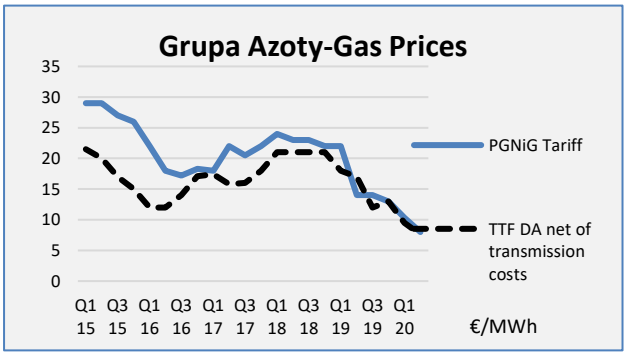
Czech Methanol Imports (unit-kilo tons)		
Country	***Jan-Aug 20***	***Jan-Aug 19***
Germany	8.9	14.5
Norway	0.7	9.7
Russia	24.3	42.9
Slovakia	0.5	0.1
Poland	23.8	4.1
Others	0.6	2.1
Total	58.6	73.3

MDI imports into the Czech Republic totalled 20,795 tons for the first eight months in 2020 up from19,450 tons from the same period in 2019. TDI imports dropped from 5,504 tons in January to August 2019 to 4,047 tons in 2020. Regarding DINP plasticizers, imports into the Czech Republic dropped from 8,014 tons in the first eight months last year to 6,982 tons, whilst exports rose to 31,214 tons from 27,032 tons.

Polish Methanol Imports (unit-kilo tons)		
Country	***Jan-Jun 20***	***Jan-Jun 19***
Belarus	4.6	2.5
Russia	251.9	203.6
Norway	21.3	13.4
Germany	4.1	15.4
Lithuania	5.5	0.0
Netherlands	8.6	0.0
Finland	37.5	0.0
Venezuela	0.0	24.1
Others	0.0	7.4
Total	333.5	266.3

Estonian methanol project

As part of Ida-Viru County's plans for transition to a sustainable economy, Estonia's state-owned energy group Eesti Energia is seeking to build a methanol production complex in the county with an estimated cost of €280 million. The complex, developed in cooperation with the Viru College of Tallinn University of Technology and other oil shale companies, would allow the production of formaldehyde, which in turn is required for the production of polymers and other chemical industry raw material.



The added value of methanol exceeds the cost of oil shale, and this would also reduce Estonia's carbon footprint. At the end of the 20th century, the construction of a methanol plant was planned by Nitrofert at Kohtla-Järve, which at that time belonged to Gazprom. After the sale of Nitrofert, implementation of this plan stalled.

Grupa Azoty-lower gas prices

Lower gas prices in the first half of 2020 helped Grupa Azoty maintain a positive EBITDA of 26.5%, despite a fall in revenues of 22%. The fall in gas prices meant that fertiliser margins, which is the most important category for Azoty, dropped only slightly from 11.8% to 11.6%. In the chemicals segment, Grupa

Azoty recorded a 22% decrease in revenues in the first half of 2020 to zl 531 million, with a simultaneous increase in the EBITDA margin by 13% up to 20.5%.

Polish Petrochemical Trade Jan-Jun 2020 (unit-kilo tons)		
Product	***Import***	***Export***
Propylene	70.2	10.8
Butadiene	48.3	0.0
Benzene	8.3	107.0
Toluene	12.4	5.7
Paraxylene	9.5	0.0
Styrene	73.7	0.1
Ethylbenzene	29.4	0.0
Methanol	333.3	104.7
Isopropanol	13.4	1.1
Normal butanol	3.2	0.8
Isobutanol	0.4	1.5
2-EH	3.9	1.7
Ethylene glycol	33.1	10.2
Propylene glycol	12.9	0.7

Polish Chemical Production (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Caustic Soda Liquid	217.0	243.8
Caustic Soda Solid	43.9	45.2
Caprolactam	103.2	110.3
Acetic Acid	3.6	4.4
Polystyrene	43.3	42.3
EPS	69.2	72.4
Synthetic Rubber	183.8	190.3
Ammonia (Gaseous)	1531.2	1585.0
Ammonia (Liquid)	67.7	67.6
Pesticides	47.4	43.0
Nitric Acid	1588.0	1534.0
Nitrogen Fertilisers	1377.0	1282.0
Phosphate Fertilisers	281.8	304.5
Potassium Fertilisers	253.4	282.3

The prices of feedstocks for Azoty's production of alcohols and plasticizers, i.e. propylene and PTA, also dropped significantly in the first half of 2020. Revenues generated by Azoty ZAK in the second quarter of 2020 for oxo alcohols were by 32% lower than in the same quarter last year and for melamine, the decrease in revenues was 38%. Titanium white sales from the Police plant remained fairly stable, whilst the fertiliser segment did not suffer significantly from the pandemic.

Boruta-Zachem targets

Boruta-Zachem aims to increase the company's capitalisation to $1 billion by the end of 2022, which it intends to use for expansion. Boruta-Zachem operates in three areas: the production of dyes and pigments, the production of biosurfactants used in the chemical and cosmetic industry, and research and development of innovative chemical solutions, such as prebiotics or nano-dressings. Boruta-Zachem has production plants at Bydgoszcz and Zgierz.

By 2023, the group has set a target of becoming a leader in industrial biotechnology in the Central European region. This could be achieved through the implementation of strategic goals such as achieving the position of a leader in industrial biotechnology in the Central European region and achieving a leading position on the Polish market in the sale of natural cosmetics.

Chimcomplex Jan-Jun 2020

Chimcomplex posted a net loss of 27.6 million lei (€5.7 million) in the first half of 2020, compared to a 0.57 million lei net profit in the like period of 2019. The operating result fell to 24 million lei in the first half of 2020 from 60.5 million lei in the same period of 2019 which was due mainly to a strong decrease in the price of chlorine-sodium products. The main activity of Chimcomplex was affected by low demand resulting from COVID-19, both on the internal market and on the external market. Turnover fell 25.7% on the year to 524.2 million lei for the January-June period of 2020, as the company could not sell oxo-alcohols and was forced to close the installation due to low demand. The company exports around 68% of its production. In the first half of 2019, the sales of oxo-alcohols products were worth €19 million.

Chimcomplex Sales (€ million)		
Product	***Jan-Jun 20***	***Jan-Jun 19***
Polyols	62.1	73.2
Chlor-alkali	40.9	50.7
Oxo alcohols	0.0	19.0

In December 2018, Chimcomplex took over Oltchim for approximately 582.3 million lei. Oltchim the only producer of liquid caustic soda in South East Europe and the only producer of chlorine and polyether polyols in Romania. Chimcomplex wants to increase its share capital by almost 55% in order to provide the necessary funds for investments and to ensure the working capital necessary for the operation of assets at Borzeşti and Ramnicu Valcea (formerly Oltchim) In 2019 Chimcomplex achieved revenues of €257 million from the combined sales from the two sites at Ramnicu Valcea and Borzesti.

RUSSIA

Russian Chemical Production (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Caustic Soda	846.6	853.9
Soda Ash	2,193.0	2,213.0
Ethylene	2,780.8	2,055.8
Propylene	1,589.0	1,589.0
Benzene	910.0	879.0
Xylenes	331.7	243.9
Styrene	483.5	482.5
Phenol	169.2	145.2
Ammonia	13,100.0	12,200.0
Nitrogen Fertilisers	7,426.0	7,578.0
Phosphate Fertilisers	2,969.0	2,827.0
Potash Fertilisers	6,508.0	5,452.0
Plastics in Bulk	6,632.0	5,668.0
Polyethylene	2,266.0	1,514.0
Polystyrene	381.4	356.2
PVC	683.3	673.0
Polypropylene	1,114.3	1,073.1
Polyamide	103.4	108.8
Synthetic Rubber	979.0	1,008.0

Russian chemical production, Jan-Jul 2020

Chemical production rose 5.3% in Russia in the first eight months this year, largely as a result of the start-up of the huge ZapSibNeftekhim complex at Tobolsk. Polyethylene in primary forms totalled 2.259 million tons in January-August, which is 48.9% higher compared to the same period in 2019. PVC production in August 2020 amounted to 84,700 tons, which is 0.4% less than in August 2019, but 50.9% more than in July. In the first eight months, 683,300 tons of PVC were produced, which is only 1.0% higher than in 2019.

Ethylene production in Russia rose from 2.056 million tons in January to August 2019 to 2.781 million tons this year whilst benzene production rose from 879,000 tons to 910,000 tons.

Production of polycarbonate, polyesters, polyesters, alkyd and epoxy resins in Russia for the first eight months amounted to 484,000 tons which is 4.5% more than in 2019. Polystyrene production totalled 381,400 tons in the first eight months in 2020 which is 4.7% more than in the same period last year, whilst the production of synthetic rubber dropped 1.2% to 979,000 tons.

Russian petrochemical projects

SIBUR commences start of construction of Amur Gas Chemical Complex

Russian safety body Glavgosexpertiz issued a positive opinion in October regarding the design documentation and the results of engineering surveys for the Amur Gas Chemical Complex. Under the ownership of SIBUR the plant is to be constructed at a site 15 kilometres north-east of Svobodny in the Amur Oblast for which investment costs are estimated provisionally at $10-11 billion. The extended configuration of the project involves the processing of ethane fraction and LPG from the Amur GPP. This will result in capacities of 2.7 million tpa of polyolefins including 2.3 million tpa of polyethylene and 400,000 tpa of polypropylene. The pyrolysis unit with a unit capacity of 2.3 million tpa will become the largest production unit of this type in the world.

Amur Gas Chemical Complex main products	
Product	Capacity
Ethylene	2.3 million tpa
Polyethylene	2.7 million tpa
Polypropylene	400,000 tpa

In February 2020, Linde signed an EPSS contract with SIBUR (engineering, procurement and site services) for the pyrolysis unit of the Amur Gas Chemical Complex. The services will be provided as part of a consortium with NIPIGAZ. SIBUR's technology partners are also Univation Technologies and Chevron Phillips (ethylene polymerisation) and LyondellBasell (propylene polymerisation). NIPIGAZ has been commissioned to manage the design, procurement and construction of off-site facilities. In areas that do not involve the purchase of unique licensed foreign-made equipment, the project involves its localization up to 80%.

The construction of the complex will be synchronized with the gradual reaching full capacity of the Amur GPP of Gazprom, the supply of ethane and LPG from which should provide the gas chemical complex with raw materials for further processing. Estimated completion of construction and commissioning works are set provisionally for 2024-2025. It is assumed that the Chinese state corporation Sinopec will act as SIBUR's partner in the project. The complex will become a key project in SIBUR's investment programme for the next five years, and the launch will almost double capacity for the production of base polymers, even taking into account ZapSibNeftekhim, which is already reaching full capacity.

Nizhnekamskneftekhim-ethylene project update

More equipment deliveries for the new 600 ktpa cracker at Nizhnekamsk arrived in mid-October, the last of the water transportation season for 2020. The construction is taking place in the Nizhnekamsk municipal district, in the second industrial zone of Nizhnekamskneftekhim. The site of the complex will include a zone of pyrolysis furnaces (consisting of six high-performance furnaces), a zone for primary fractionation and washing of raw materials and a zone of compressors for compressing cracking gas.

Nizhnekamskneftekhim pyrolysis unit main characteristics	
Licensor	Linde
Contract	Gemont
Capacity	Ethylene 600 ktpa including six furnaces
Capacity	Propylene 272.8 ktpa
Naphtha Processing	1.798,500 million tpa
Equipment deliveries 2020	264 units

The sixth vessel with technological equipment for the new EP-600 plant of Nizhnekamskneftekhim arrived at the Nizhnekamsk cargo port in mid-October. The ship Neva-Leader 2 began its journey in Italy, where 15 pieces of equipment were loaded. In Romania, 46 more pieces of equipment brought from South Korea were taken on board. Thus, in total, 61 pieces of equipment were delivered to Nizhnekamsk in Tatarstan. The project includes with a design capacity of 600,000 tpa designed to process 1.799 million tpa of naphtha. Other new facilities include 272,800 of propylene.

Astrakhan polyethylene project

Russian polymer processor and supplier Metaclay continues to work on its project for the production of polyethylene, in conjunction with the Caspian Innovation Company. Metaclay hopes to sign an agreement with Gazprom on the formula for the price of ethane fraction for new production. Production will occupy an area of 75-100 hectares in the territory of the Astrakhan gas processing plant. The capacity of the polyethylene plant is being designed to produce 300,000 tpa. Metaclay is a Russian producer of nanosilicates and polymer compositions. Over the past five years, the company has provided up to 80% of the domestic market's demand for anti-corrosion coatings for gas pipes. Caspian Innovation Company was registered in Astrakhan in September 2016.

For road delivery the main access to the territory of the new complex will be via the Nizhnekamsk-Begishevo motorway, then along the on-site roads of the second industrial zone of Nizhnekamskneftekhim. During the main water navigation period in Tatarstan, which lasts from June to September-October, a total of around 264 equipment pieces of all sizes were scheduled for delivery in 2020 to Nizhnekamskneftekhim using the Kama River which links to the Volga. The contractor for the project Turkish company Gemont LLC was concluded in February 2020.

Gemont has mobilised staff at Nizhnekamsk and a shift camp is being constructed in parallel. In the near work on the main foundations for the new cracker will start, including underground pipelines, steel structures, etc. Already a column DA036-01 was installed which is designed to separate propylene from propylene-propane fractions. The project was estimated at 40% completion by mid-September.

INK is preparing a site for the Irkutsk Polymer Plant

Irkutsk Oil Company (INK) is carrying out preparatory work at the site of the future polymer complex in Ust-Kut. About 100 units of road construction equipment are involved. To date, 1.5 million cubic metres of soil have been excavated at the site for future construction and the next stage involves levelling and concreting the area. At the peak of construction in 2021-2022, several thousand specialists will be involved at the site.

Irkutsk Polymer Plant main characteristics	
Ethylene licensor	Toyo
Licence for PE Plant	Unipol
Capacity	Ethylene 650 ktpa
Capacity	Polyethylene 650 ktpa

In September 2020, INK completed the delivery of equipment manufactured in Japan, Korea, China, and then loaded onto sea transport in the South Korean port of Masan. It took about three months to deliver the goods to the customer's site. A total of 45 vehicles with a total weight of 4,500 tons were transported.

The Irkutsk Polymer Plant's capacity will be 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 Ust-Kut and other northern regions of the region. Engineering company Toyo Engineering Corporation is involved in the project.

Russian Ethylene Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Angarsk Polymer Plant	129.1	125.9
Kazanorgsintez	424.0	443.2
Stavrolen	226.7	228.8
Nizhnekamskneftekhim	440.1	432.8
Novokuibyshevsk Petrochemical	28.9	39.5
Gazprom N Salavat	252.0	209.6
SIBUR-Kstovo	242.8	267.5
SIBUR-Khimprom	37.4	35.0
Tomskneftekhim	191.6	186.4
Ufaorgsintez	83.5	85.0
ZapSibNeftekhim	724.8	0.0
Total	2780.9	2053.7

Russian petrochemical markets

Russian ethylene production, Jan-Aug 2020

Russian ethylene production totalled 2.781 million tons in the first eight months in 2020 against 2.054 million tons in the same period in 2019. ZapSibNeftekhim produced 724,800 tons in January to August. Full capacity at the 1.5 million tpa plant at Tobolsk is expected by the end of the year. In the first eight months in 2020 Nizhnekamskneftekhim increased ethylene production from 432,800 tons to 440,100 tons whilst Kazanorgsintez dropped slightly from 443,200 tons to 424,000 tons.

Other important ethylene producers in the first eight months included SIBUR-Kstovo which produced 242,800 tons versus 267,500 tons and Gazprom neftekhim Salavat which produced 209,600 tons against 252,000 tons. In terms of feedstocks, ZapSibNeftekhim relies on LPGs delivered from the gas processing plants in West Siberia, whilst Kazanorgsintez relies heavily on ethane feedstock supplies from the Orenburg and Minnibayevo gas plants but also needs to purchase other hydrocarbons. Propane supplies are purchased by Kazanorgsintez mostly from Uralorgsintez and SIBUR-Novatek at Tobolsk, usually in volumes of 8-10,000 tons per month.

Russian Propylene Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Angarsk Polymer Plant	71.1	69.9
Kazanorgsintez	31.6	33.1
Lukoil-NNOS	155.0	199.4
Stavrolen	88.6	92.5
Nizhnekamskneftekhim	210.8	217.0
Novokuibyshevsk Petrochemical	22.7	29.6
Omsk Kaucuk	22.1	31.1
Polyom	122.4	126.9
Gazprom n Salavat	108.9	94.2
SIBUR Kstovo	105.8	115.2
SIBUR-Khimprom	36.5	38.1
Tomskneftekhim	107.3	99.5
SIBUR Tobolsk	278.5	313.9
Ufaorgsintez	128.0	128.4
ZapSibNeftekhim	273.6	0.0
Total	1762.7	1589.0

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

Russian propylene production amounted to 1.763 million tons in the first eight months in 2020 against 1.589million tons in the same period in 2019. The increase was due largely to the start-up of the plant at ZapSibNeftekhim at Tobolsk where production amounted to 273,600 tons in the first eight months. The aim is for full capacity to be achieved by the end of 2020. Due to maintenance this year SIBUR-Tobolsk reduced propylene production from 313,900 tons in the first eight months in 2019 to 278,500 tons.

Russian Propylene Domestic Sales (unit-kilo tons)		
Company	***Jan-Aug 20***	***Jan-Aug 19***
Angarsk Polymer Plant	43.1	49.7
SIBUR-Kstovo	93.1	99.8
Lukoil-NNOS	129.2	156.9
Others	17.8	6.5
Total	281.2	312.9

Nizhnekamskneftekhim reduced propylene production slightly in the first eight months from 217,000 tons to 210,800 tons, whilst Lukoil-NNOS at the Kstovo refinery reduced output from 199,400 tons to 155,000 tons. Gazprom neftekhim Salavat produced 108,900 tons against 94,200 tons.

Russian sales of propylene on the domestic merchant market amounted to 281,200 tons in the first eight months in 2020 against 312,900 tons in the same period last year. Although production was started at ZapSibNeftekhim all volumes were consumed internally in the production of polypropylene. The largest propylene supplier to the domestic market in the first eight months was Lukoil-NNOS, shipping 129,200 tons against 156,900 tons followed by SIBUR-Kstovo which reduced from 99,800 tons to 80,700 tons.

Russian Propylene Exports (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Lukoil-NNOS	23.1	31.8
SIBUR-Kstovo	3.4	6.1
Angarsk Polymer Plant	0.7	0.0
Stavrolen	6.5	12.1
Total	33.7	50.0

Propylene exports dropped in the first eight months from 50,000 tons last year to 33,700 tons. Lukoil-NNOS reduced export sales from 31,800 tons to 23,100 tons whilst Stavrolen reduced from 12,100 tons to 6,500 tons.

Changes in the market this year have included the sale of merchant propylene by Kazanorgsintez due to excess production. Kazanorgsintez has been using more propane feedstock which has led higher propylene output volumes, although amounting only to less than a,000 tons a month.

Russian Propylene Domestic Purchases (unit-kilo tons)		
Consumer	***Jan-Aug 20***	***Jan-Aug 19***
Saratovorgsintez	98.9	131.4
Volzhskiy Orgsintez	7.6	5.7
Akrilat	8.4	6.9
SIBUR-Khimprom	41.4	39.4
Omsk-Kaucuk	14.0	18.0
Tomskneftekhim	4.2	3.7
SIBUR Tobolsk	63.4	81.9
Moscow Refinery	13.1	13.0
Ufaorgsintez	9.1	3.6
Gazprom neftekhim Salavat	0.0	1.0
Stavrolen	0.5	1.2
Kazanorgsintez	1.2	0.0
Samaraorgsintez	3.6	0.0
Khimprom Kemerovo	2.1	2.3
Plant of Synthetic Alcohol	11.9	4.6
Angarsk Polymer Plant	2.0	0.2
Total	281.2	312.9

SIBUR-Tobolsk reduced merchant propylene purchases from 81,900 tons in January to August 2019 to 63,400 tons in the same period this year.

The Plant of Synthetic Alcohol at Orsk has bought more propylene in the past few months due to ramped up production of isopropanol, rising to 11,900 tons against 4,600 tons in the first eight months last year.

Saratovorgsintez remains the largest merchant consumer of propylene on the domestic market, although down in the first eight months to 98,900 tons against 131,400 tons in the same period in 2019.

Russian styrene production & sales, Jan-Aug 2020

Russia produced 484,500 tons of styrene in the first eight months in 2020 versus 482,500 tons in the same period in 2019. The largest producer Nizhnekamskneftekhim reduced production from 208,200 tons to 205,100 tons. Gazprom neftekhim Salavat increased production from 126,300 tons to 127,100 tons despite a maintenance shutdown early in the year. SIBUR-Khimprom at Perm increased production from 89,600 tons to 99,100 tons. In terms of raw materials, four of the five producers are integrated back into ethylbenzene with the exception being Plastik at Uzlovaya.

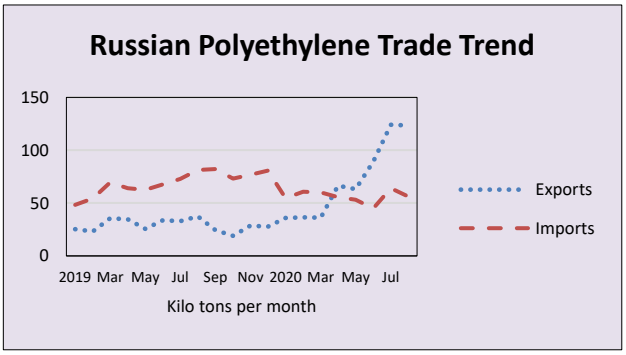
Russian Styrene Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Nizhnekamskneftekhim	205.1	208.2
Angarsk Polymer Plant	22.6	24.2
SIBUR-Khimprom	99.1	89.6
Gazprom n Salavat	127.1	126.3
Plastik, Uzlovaya	30.6	34.2
Total	484.5	482.5

Styrene sales on the Russian domestic merchant market totalled 76,300 tons in January to August 2020 against 70,300 tons in the same period in 2019. Gazprom neftekhim Salavat increased shipments from 26,900 tons to 40,700 tons and SIBUR-Khimprom reduced shipments from 27,400 tons to 27,200 tons.

Russian Styrene Exports (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Angarsk Polymer Plant	4.1	6.8
Plastik Uzlovaya	0.0	0.2
Gazprom neftekhim Salavat	53.0	63.7
Nizhnekamskneftekhim	0.4	4.6
SIBUR-Khimprom	5.4	1.2
Total	63.0	76.4

Russian styrene exports dropped in the first eight months to 76,400 tons against 63,000 tons. Gazprom neftekhim reduced shipments from 76,400 tons to 63,000 tons. Finland took 63.4% of Russian styrene exports followed by Turkey with 20.3% and Norway with 5.3%. Revenues from exports declined from $67.3 million in January to August 2019 to $55.2 million in the same period this year.

Bulk Polymers



Russian polyethylene trade, Jan-Aug 2020

Until this year polyethylene imports into the Russian market typically exceeded exports as demand was higher than domestic production. Following the start-up of the ZapSibNeftekhim plant at Tobolsk at the end of 2019 Russian polyethylene production has risen sharply and exports now exceed imports. In the first eight months this year exports rose to 574,814 tons against 248,785 tons in January to August 2019. Exports consisted mostly of HDPE at 351,083 tons and LDPE 213,371 tons.

Regarding import activity, shipments to Russia In January-August 2020 decreased by 12%, amounting to 449,489 tons against 521,284 tons in the same period last year. HDPE imports amounted to 183,900 tons, which is 24% less than in January to August 2019. The largest decrease in supplies was seen in film grade and pipe grade HDPE. LDPE imports to Russia rose 14% in the first eight months to 74,500 tons, whilst LLDPE imports fell 10% to 107,500 tons. Imports of other ethylene polymers rose to 63,100 tons against 62,000 tons.

ZapSibNeftekhim-produced 1.5 million tons of polyolefins in first eight months

ZapSibNeftekhim has produced 1.5 million tons of polymers since the launch of its main production facilities at the end of 2020. By the end of the fourth quarter the company aims to have achieved 90% utilisation rates. The project capacity of the complex is 2 million tpa of polymers per year (1.5 million tpa of polyethylene and 500,000 tpa of polypropylene). Currently, 19 polyethylene brands and 10 polypropylene brands have been homologated by customers.

Russian polyolefin maintenance

On 31 August Tomskneftekhim completed its maintenance programme whereby the polyethylene capacity was increased. Every two years Tomskneftekhim stops its work for major repairs lasting for around three weeks of shutdown repairs.

Kazanorgsintez completed planned repair work on the production of LDPE in October, which started in the middle of September. The capacity of the LDPE complex is 225,000 tpa. The HDPE unit at Kazanorgsintez started maintenance in October where capacity stands at 540,000 tpa.

Polyethylene plant maintenance at Ufaorgsintez started on 25 August and was partially restarted on 28 September. Ufaorgsintez resumed production of polypropylene on 13 October after a planned shutdown for repairs which started on 12 September. The capacity of the polypropylene plant at Ufa is 120,000 tpa. Polyom at Omsk started a two-week shutdown of the 200,000 tpa polypropylene plant on 2 October. Polyom at Omsk started a two-week shutdown of the 200,000 tpa polypropylene plant on 2 October.

Russian LLDPE trade, Jan-Aug 2020

This year LLDPE imports into Russia have dropped by volume and cost as domestic production has risen. In order to protect domestic producers of LLDPE Russia wants to put 6.5% duty on LLDPE in the Eurasian Customs Union. The Association of Packers of Kazakhstan has opposed the introduction of an import duty on LLDPE as Russian polyethylene producers do not have the brands needed for barrier films and need to be imported from other countries. The duties will certainly lead to higher prices for packaging, which will affect the entire chain of consumers, ending with food buyers.

Russian polypropylene trade, Jan-Aug 2020

Russian polypropylene exports amounted to 458,000 tons in the period January to August 2020, of which 26.6% of shipments went to China. Exports rose 2.9 times from the 152,000 tons which was shipped in the first eight months in 2019.

Imports of polypropylene to Russia grew by 21% in the first eight months in 2020 to 143,200 tons against 120,100 tons in 2019. The total volume of PP-homo imports into the country amounted to 60,900 tons against 38,200 tons. Imports of block copolymers increased to 38,700 tons against 37,200 tons whilst random copolymer imports dropped from 23,500 tons down to 20,800 tons.

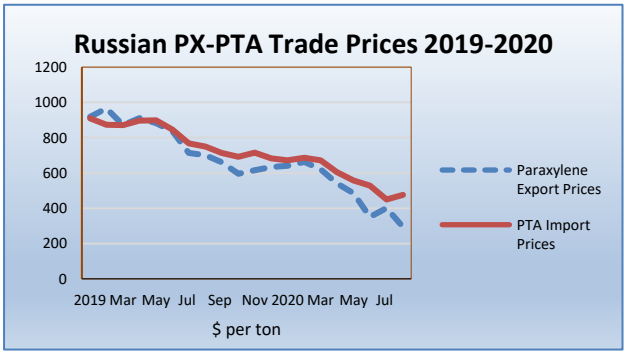
Russian PVC production & trade, Jan-Aug 2020

Russian PVC production amounted to 632,500 tons in the first eight months against 631,100 tons the same period in 2019. RusVinyl produced 26,100 tons in August of which 2,000 tons consisted of emulsion PVC. In January to August 2020 RusVinyl produced 216,100 tons of against 226.400 tons for the same period in 2019. Sayanskkhimplast produced 189,400 tons of against 184,900 tons and the Bashkir Soda Company (BSK) increased by 4% to 176,100 tons. Kaustik produced 50,800 tons against 50,700 tons in the period January-August 2019.

Russian PVC Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Bashkir Soda	176.1	169.1
Kaustik	50.8	50.7
RusVinyl	216.1	226.2
Sayanskkhimplast	189.4	184.9
Total	632.4	630.9

PVC exports from Russia amounted to 177,000 tons in the first eight months against 164,000 tons in the same period in 2019. Imports of PVC to the Russian market grew by 5% in the first eight months of the year to 148,000 tons against 134,900 tons.

Paraxylene-PTA-PET



Russian paraxylene production Jan-Aug 2020

Russian paraxylene exports from Russia amounted to 101,400 tons in the first eight months in 2020 against 99,600 tons in the same period in 2019, with revenues from sales dropping from $84.7 million to $45.6 million.

Russian PTA imports, Jan-Aug 2020

PTA imports into Russia totalled 196,200 tons in the first eight months in 2020 against 292,200 tons in the same period last year. China reduced PTA shipments into Russia in the first eight months from 210,100 tons to 176,400 tons and South Korea reduced shipments from 54,000 tons to 7,000 tons. Average prices for PTA imports amounted to $580 per ton in January to August 2020 against $627 per ton in the same period in 2019.

Russian PTA Imports by Country (unit-kilo tons)		
Country	***Jan-Aug 20***	***Jan-Aug 19***
Belgium	8.0	18.0
India	0.0	1.0
China	176.4	210.1
South Korea	7.0	54.0
Poland	3.0	3.0
Thailand	0.0	3.0
Others	1.9	3.1
Total	196.2	292.2

Ekopet at Kaliningrad accounted for 59% of imports ($71 million in value) over the first eight months in 2020 against $157 million in the same period last year. Regarding the mode of delivery PTA imports from China to Kaliningrad are now available by rail. The journey from Dalian in China before moving to Zabaykalsk on the Sino-Russian

border and then transiting through Russia and Latvia before arriving at the Kaliningrad. This year a new container system has been introduced enabling shipments of up to 2,650 tons of PTA which can be delivered in shorter time than by sea.

Russian PTA Imports by Region (unit-kilo tons)		
Location	***Jan-Aug 20***	***Jan-Aug 19***
Kaliningrad	90.3	147.4
Moscow	59.7	33.8
Others	5.9	67.2
Total	196.2	292.2

Ekopet-share sale fails

No bidders appeared at the auction in September for the sale of the Kaliningrad group of companies Ekopet, and the auction was not held. The starting price had been indicated at 5.5 billion roubles. Ekopet's turnover in 2019 amounted to 15.4 billion roubles, 18% down on the same period in 2018.

The Ekopet group includes three legal entities: an industrial complex, a trading house, and an industrial park BaltTechProm (Baltic Industrial Park). The plant of Ekopet was commissioned in 2011 (initial design capacity of 220,000 tpa of PET) and manufactures products under the Ekopet trademark, intended for the production of bottles, as well as other types of packaging for food and non-food purposes.

Aromatics

Russian Benzene Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Angarsk Polymer Plant	52.3	47.9
Gazprom Neft	74.1	51.8
LUKoil-Neftekhim	24.4	28.5
LUKoil-Permnefteorgsintez	31.4	34.1
Magnitogorsk MK	28.0	33.8
Nizhnekamskneftekhim	202.6	195.4
Novolipetsk MK	0.6	4.7
Gazprom n Salavat	135.7	112.0
Severstal	22.9	26.7
SIBUR-Holding	52.3	50.0
Slavneft-Yaroslavlorgsintez	45.4	36.9
Surgutneftegaz	42.4	52.4
Ryazan RN Holding	22.9	22.4
Ufaneftekhim	60.5	53.2
Ural Steel	6.6	6.7
Uralorgsintez	56.1	56.6
Zapsib	41.6	50.1
Novokuibyshevsk Petrochemical	10.4	15.8
Total	910.2	879.0

Russian benzene production Jan-Aug 2020

Russian benzene production rose in the first eight months this year from 879,000 tons to 910,200 tons. Nizhnekamskneftekhim increased benzene production from 195,400 tons to 202,600 tons, whilst Gazprom neftekhim Salavat increased production from 112,000 tons to 135,700 tons. Rosneft's three benzene plants at Angarsk, Novokuibyshevsk, Ufa and Ryazan produced a combined total of 92,600 tons against 86,100 tons in January to August 2019, whilst Gazprom Neft at Omsk increased benzene production from 51,800 tons to 74,100 tons.

Regarding domestic merchant sales, Russian producers shipped 498,400 tons in the first eight months this year against 565,700 tons in the same period in 2019. Since July benzene stocks have come under greater control due to the repair work carried out at several plants. From 21 June to 1 August, aromatics production was stopped at Lukoil-PNOS, and from 22 June to 1 August at the pyrolysis unit of the Angarsk Polymer Plant. At SIBUR-Kstovo, the pyrolysis unit was down from 19 July to 12 August. For technical reasons, benzene production at Stavrolen was idle in July whilst the production of benzene at Severstal was idle for about two weeks in June.

Aside shutdowns one of the suppliers to the merchant market, Kirishinefteorgsintez, has reduced deliveries this year to 1,800 tons against 34,500 tons in January to August 2019 as the company has concentrated on export shipments. Domestic sales of benzene in Russia dropped from 419,100 tons in the first half of 2019 to 394,400 tons in the same period in 2020. SIBUR-Kstovo increased shipments to the merchant market from 50,000 tons in January to August 2019 to 50,200 tons in the same period in 2020, whilst Gazprom Neft at Omsk reduced shipments from 55,000 tons to 51,000 tons.

As a result of market tightness in the third quarter merchant consumers have looked towards imports in order to resolve the shortfalls. For the first time TAIF bought benzene from Naftan in Belarus in September due to a shortage of the product for delivery to Kazanorgsintez, where benzene is used to produce Bisphenol A. The batch volume amounted to 1,300 tons.

Russian Benzene Sales (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Angarsk Polymer Plant	33.8	28.0
SIBUR-Kstovo	51.6	46.3
Severstal	22.8	27.3
Uralorgsintez	54.3	50.7
Kirishinefteorgsintez	1.8	34.5
West Siberian MC	40.8	48.9
Ryazan NPZ	21.6	27.5
Slavneft-Yanos	39.5	36.9
Gazprom Neft (Omsk)	51.0	55.0
Gazprom n Salavat	24.0	24.1
Stavrolen	24.4	33.1
Nizhnekamskneftekhim	20.2	6.9
Ufaneftekhim	4.1	2.2
Karpatneftekhim	1.5	24.9
Ukrtatnafta	0.0	0.9
Belarussian refineries	3.7	3.4
Atyrau	24.6	16.3
Novolipetsk MK	0.0	3.3
Chelyabinsk MK	6.3	10.2
Altay-Koks	17.3	22.9
Koks	14.1	16.1
Magnitogorsk MK	29.9	31.0
Nizhny Tagil MK	10.9	15.3
Ural Steel	0.2	0.0
Full Total	498.4	565.7

Deliveries of benzene from Belarus to Russia totalled 3,700 tons in the first eight months, of which most came from the Mozyr refinery. Shchekinoazot has been the major importer of benzene from Belarus this year due to geographical proximity. In the first eight months in 2020 benzene import volumes into Russia dropped from 49,000 tons to 39,100 tons.

Kuibyshevazot reduced benzene purchases from 124,700 tons to 109,300 tons in the first eight months whilst Azot at Kemerovo reduced purchases from 80,700 tons to 71,700 tons. For the production of cumene Kazanorgsintez purchased a total of 45,500 tons of benzene in January to August 2020, versus 43,000 tons in 2019, whilst Omsk Kaucuk purchased 23,400 tons against 12,800 tons. The rise in demand from Omsk Kaucuk was due to the start-up of the modernised phenol facilities.

Russian caprolactam production, Jan-Aug 2020

Russian caprolactam production amounted to 245,900 tons in January to August 2020 against 251,900 tons in 2019. Kuibyshevazot reduced production from 138,100 tons to 128,700 tons whilst SDS Azot at Kemerovo reduced production to 73,500 tons from 77,800 tons.

Russian orthoxylene market, Jan-Aug 2020

Orthoxylene sales on the Russian domestic market amounted to 109,800 tons in the first eight months in 2020 against 973400 tons in the same period in 2019. Gazprom Neft reduced domestic shipments from 69,200 tons to 57,400 tons whilst Ufaneftekhim increased shipments from 20,100 tons to 41,700 tons.

Russian Caprolactam Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Kuibyshevazot	128.7	138.1
Shchekinoazot	39.4	40.3
SDS Azot	77.8	73.5
Total	245.9	251.9

Russian Orthoxylene Domestic Sales (unit-kilo tons)		
Company	***Jan-Aug 20***	***Jan-Aug 19***
Gazprom Neft	57.4	69.2
Ufaneftekhim	41.7	20.1
Kinef, Kirishi	10.7	8.0
Total	109.8	97.3

The largest consumer of orthoxylene in Russia is Kamteks-Khimprom at Perm, which produces phthalic anhydride, reduced purchases from 53,100 tons in the first eight months in 2019 to 43,100 tons in the same period this year. The smaller phthalic producer Gazprom neftekhim Salavat reduced purchases from 7,600 tons to 6,600 tons. Whilst orthoxylene consumption may have declined for phthalic anhydride, other applications such as explosives and fuels made up the difference.

Russian phenol market, Jan-Aug 2020

Russian phenol production rose from 145,400 tons in the first eight months in 2019 to 169,200 tons in the same period in 2020. Novokuibyshevsk Petrochemical produced 45,600 tons of phenol against 48,500 tons whilst Ufaorgsintez reduced production from 50,700 tons to 43,600 tons. Kazanorgsintez increased slightly from 46,100 tons to 53,800 tons. The significant change came from Omsk Kaucuk which produced 26,200 tons against no activity in 2019.

Russian Phenol Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Ufaorgsintez	43.6	50.7
Kazanorgsintez	53.8	46.1
Novokuibyshevsk Petrochemical	45.6	48.5
Omsk Kaucuk, Omsk	26.2	0.0
Total	169.2	145.4

Sales of phenol on the Russian domestic market amounted to 80,300 tons in the first eight months in 2020, down from 86,000 tons. Omsk Kaucuk

supplied 18,100 tons of phenol to the domestic market, compensating for lower sales from Ufaorgsintez and Kazanorgsintez. Ufaorgsintez reduced sales from 45,900 tons in January to August 2019 to 25,100 tons whilst Novokuibyshevsk Petrochemical Company reduced shipments from 37,700 tons to 37,000 tons.

Russian Phenol Exports (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Omsk Kaucuk	5.8	0.0
Kazanorgsintez	0.0	3.1
Ufaorgsintez	19.8	7.4
NNK	1.4	3.2
Total	26.9	13.7

Russian phenol exports rose to 26,900 tons in the first eight months in 2020 against 13,700 tons in the same period in 2019. Poland was the largest destination for Russian exports. Ufaorgsintez exported 19,800 tons, but Kazanorgsintez did not ship either to the export market. The Novokuibyshevsk Petrochemical Plant exported only 1,400 tons of phenol in the first eight months against 3,200 tons last year.

Russian Phenol Exports Jan-Aug 2020		
Country	***Kilo tons***	***$ million***
Slovenia	1.0	0.7
Belarus	4.9	3.3
Czech Republic	2.8	2.1
Netherlands	1.9	1.3
Poland	6.4	4.4
Slovakia	4.2	2.8
Brazil	2.5	1.6
Latvia	1.0	0.7
Others	2.1	2.0
Total	26.9	18.8

Omsk Kaucuk exported 5,800 tons in the first eight months, comprising around a 35% of production. Export activity from Omsk has slowed down since the start of the third quarter as Omsk Kaucuk underwent repairs and also preparation for the forthcoming start-up of the new isopropanol plant. Omsk Kaucuk is combining the reconstruction of the cumene plant with the investment into isopropanol.

Synthetic rubber

Russian rubber production and market balance 2020

Synthetic rubber production in Russia totalled 979,000 tons in the first eight months in 2020 against 1.008 million tons in the same period last year. Production of synthetic rubber in August decreased by 9.1% against July to 118,000 tons and down by 4.9% against August 2019.

Russian Synthetic & Natural Rubber Market (unit-kilo tons)		
	Jan-Aug 20	**Jan-Aug 19**
Production	979.0	1009.0
Exports	606.5	674.4
Imports	130.3	151.1
Supply/Demand Balance	502.8	485.7

Domestic consumption of synthetic rubber rose to 502,800 tons in the first eight months in 2020 against 485,700 tons. The higher performance in the first eight months is largely accounted to the redirection of production from Togliattikaucuk away from exports to the new owners Tatneft's tyre plants in Tatarstan. Most of the increase was seen in the first few months but has slowed down due to the economic effects of COVID-19.

Russian Tyre Production (unit-mil pieces)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Car Tyres	22.0	28.9
Lorry tyres	4.5	4.0
Agricultural tyres	1.1	1.0
Total	27.5	33.9
Russian Tyre Production (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Car Tyres	174.6	229.0
Lorry tyres	35.5	32.0
Agricultural tyres	8.5	7.6
Total	218.6	268.7

Although most tyre manufacturers forecast a large drop in tyre sales this year the Russian market has benefited from rubber demand from other application sectors. In the first eight months in 2020, tyre manufacture dropped to 27.5 million units against 33.9 million units. The fall was recorded mostly in the passenger car sector whilst in January-August tyre production for buses, trolleybuses and trucks increased by 9.2% compared to the same period in of 2019.

As an indicator of tyre company performance, Nizhnekamskshina (part of the Tatneft tyre group) halved its revenue in the first half of the year to 3.45 billion roubles. Net profit decreased by 2.2 times to 70.2 million roubles and the gross profit fell by 3.8 times against the first half of 2019.

Russian synthetic rubber exports, Jan-Aug 2020

Russian exports of synthetic rubber amounted to 606,500 in the first eight months in 2020, down from 674,400 tons in the same period in 2019. Average prices for Russian synthetic rubber exports dropped from $1605 per ton in January to August 2019 to $1302 this year. As a result of lower volumes and prices

revenues from synthetic rubber exports dropped from $1.080 billion to $765 million in January to August 2020.

Russian Synthetic Rubber Exports (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
E-SBR	19.4	26.5
Block	39.9	25.2
SSBR	4.1	9.5
SBR	82.4	51.3
Polybutadiene	142.0	158.1
Butyl rubber	83.7	86.8
Halogenated butyl	76.7	93.1
NBR	20.7	23.3
Isoprene	128.9	185.1
Others	8.9	15.5
Total	606.5	674.4

Regarding shipment destinations China represented the largest market for Russian exporters in the first eight months in 2020, accounting for nearly 22.3% of sales. This was followed by Poland with 9.8%, India with 10.2% and Hungary with 3.9%. Sales to China rose in the first eight months to 160,000 tons against 87,000 tons in the same period in January to August 2019.

Nizhnekamskneftekhim-DSSK project

Nizhnekamskneftekhim has begun commissioning works at the new facility for DSSK rubber). Currently, the new production is preparing pipeline systems for receiving raw materials. The production capacity consists of 60,000 tpa of DSSK, in addition to 10,000 tpa of thermoplastic elastomers (TEP, SBS). The production licensor for the DSKK project is the Japanese company ETIC Inc.

Nizhnekamskneftekhim Rubber Exports (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Isoprene Rubber	104.9	139.0
Butyl Rubber	50.8	44.5
HBR	76.6	93.2
Polybutadiene	99.3	116.1
Others	7.9	0.4
Total	339.5	392.8

Nizhnekamskneftekhim's exports of synthetic rubbers fell in the first eight months to 339,500 tons against 392,800 tons in the same period in 2019. Isoprene rubber exports amounted to 104,900 tons against 139,000 tons last year whilst exports of halogenated butyl rubber rose fell from 93,200 tons to 76,600 tons.

Togliattikaucuk Rubber Exports (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
Isoprene Rubber	4.5	22.9
Butyl Rubber	32.9	43.4
SBR	23.2	32.5
Others	0.2	0.5
Total	60.8	99.2

Togliattikaucuk-rubber exports

Togliattikaucuk exported a total of 60,800 tons of synthetic rubber in the first eight months in 2020 against 99,200 tons in the same period in 2019. Isoprene rubber exports dropped from 22,900 tons to 4,500 tons, whilst butyl rubber fell from 43,400 tons to 32,900 tons and SBR exports dropped from 32,500 tons to 23,200 tons. The switch of ownership of the Togliatti rubber assets from SIBUR to Tatneft has impacted heavily on sales distribution. The transfer has largely amounted to replacing exports with domestic shipments.

Fluoroelastomers-recylced butyl rubber

Fluoroelastomers (Tula region) is increasing the production of rubber compounds to 1,500 tpa with the attraction of a soft loan from the Russian Industrial Development Fund (IDF). Investments in the project are estimated at 170 million roubles and IDF is ready to provide 85 million roubles in the form of a loan. Butyl compounds are used as additives in rubber compounds (up to 60%) to replace butyl rubber. The cost of butyl rubber traditionally exceeds the cost of butyl reclaim by 2-2.5 times. The use of reclaim in rubber mixes promotes faster absorption of the introduced powdery ingredients, lowering the mix temperature and reducing energy consumption.

Fluoroelastomers is a trade and engineering company that has been working in the rubber industry for over 10 years. The company currently supplies the Russian market with fluoroelastomers, rubber compounding ingredients, and rubber processing equipment. It is the official representative of Pan Stone, a leading Taiwanese manufacturer of equipment for the rubber industry in Russia and the CIS countries.

Russian Methanol Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Shchekinoazot	651.4	630.6
Sibmetakhim	601.1	626.8
Metafrax	745.3	713.3
Akron	61.9	69.4
Azot, Novomoskovsk	123.5	167.3
Angarsk Petrochemical	38.0	29.2
Azot, Nevinnomyssk	78.4	83.2
Tomet	626.0	528.0
Ammoni	61.1	109.2
Totals	2986.7	2957.0

Russian Methanol Exports (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Azot Nevinnomyssk	2.0	0.0
Azot Novomoskovsk	41.1	50.4
Akron	9.4	4.4
Metafrax	341.5	281.8
Sibmetakhim	335.4	315.8
Tomet	255.9	241.4
Shchekinoazot	486.2	497.6
Ammoni	0.0	13.5
Others	13.6	59.6
Total	1485.2	1464.6

Russian Methanol Exports (unit-kilo tons)		
Country	***Jan-Aug 20***	***Jan-Aug 19***
Belarus	79.4	45.2
Belgium	0.0	5.0
Bulgaria	4.5	0.2
Czech R	0.6	0.0
Finland	686.6	659.5
Georgia	0.3	0.2
Germany	1.4	2.0
Israel	4.0	11.1
Kazakhstan	26.2	23.9
Latvia	9.2	8.0
Lithuania	53.0	80.7
Netherlands	134.1	107.7
Poland	240.0	248.7
Romania	47.9	75.9
Slovakia	92.6	102.4
Spain	5.5	9.9
Switzerland	0.0	11.6
Turkey	25.5	23.3
UK	46.1	11.0
Ukraine	22.8	25.6
Others	5.6	12.8
Total	1485.2	1464.6

Methanol

Russian methanol production Jan-Aug 2020

Russia produced 2.987 million tons of methanol in the first eight months in 2020 against 2.957 million tons in same period in 2019. Metafrax produced 745,300 tons against 713,300 tons in January-August 2019 whilst Sibmetakhim at Tomsk reduced production from 626,800 tons to 601,100 tons. Tomet at Togliatti increased production to 626,000 tons from 528,000 tons.

Shchekinoazot increased production volumes from 630,600 tons in January to August 2019 to 651,400 tons. Ammoni in Tatarstan reduced methanol production from 109,200 tons in the first eight months in 2019 to 61,100 tons for the same period this year. Production at Mendeleevsk in Tatarstan was idle for a large part of the second quarter. The new owner of Ammoni, KAO Azot at Kemerovo run by Roman Trotsenko, is considering on how to invest the 12 billion roubles pledged as part of the transaction. The product line could be expanded to include urea-ammonia mixture, melamine, liquid carbon dioxide and additives for diesel fuel, in addition to mineral fertilisers.

At the start of September, the volume of methanol stocks in the warehouses of Russian domestic producers decreased by 25% against August (from 119,700 tons to 91,400 tons). The reduction of methanol stocks at the beginning of September was due to the downtime at Metafrax. The Sibmetakhim plant, which was scheduled for repair in September, continued to accumulate methanol throughout August.

Russian methanol exports, Jan-Aug 2020

Export shipments of Russian methanol totalled 1.472 million tons in the period January to August 2020 against 1.405 million tons last year. The average ratio of exports as a share of production achieved 49% so far this year, which is the highest ratio for a decade. Metafrax increased exports from 281,800 tons in the first eight months in 2019 to 341,500 tons in the same period this year whilst Sibmetakhim increased exports from 315,800 tons to 335,400 tons. The largest Russian exporter was Shchekinoazot shipping 486,200 tons versus 497,500 tons.

The main destination for Russian methanol exports remains Finland where volumes totalled 686,600 tons in the first eight months against 659,600 tons in the same period in 2019. Poland reduced purchases from Russia to 240,000 tons in January to August 2020 against 248,700 tons in the same period in 2019, whilst Slovakia reduced volumes from 102,400 tons to 92,600 tons. Romania reduced imports from Russia from 75,900 tons to 47,900 tons in January to August 2020.

Russian methanol domestic sales, Jan-Aug 2020

Merchant sales of methanol on the Russian domestic market amounted to 914,100 tons in the first eight months in 2020 against 1.1 million tons in the same period in 2019. The domestic merchant

market for methanol has started to recover from the declines in the second quarter, although full year consumption is expected to be lower for 2020 than in 2019.

Nizhnekamskneftekhim reduced purchases from 156,600 tons in January to August 2019 to 129,400 tons whilst Togliattikaucuk reduced purchases from 105,400 tons to 98,800 tons. Gazprom reduced purchases of methanol for gas hydrates from 106,500 tons in the first eight months last year to 79,900 tons in 2020. Most other significant merchant consumers reduced purchases in 2020.

The purchase and sale of the product in the Central Federal District was concluded at a price varying in the range of 14,500-16,500 roubles per ton, and in the Urals Federal District 13,200-18,400 roubles per ton, including VAT. In October, the product continued to rise in price with Tomet and Shchekinoazot, increasing prices by 1,000-1500 roubles per ton.

Russian Methanol Domestic Sales (unit-kilo tons)

Producer	*Jan-Aug 20*	*Jan-Aug 19*
Azot Nevinnomyssk	11.6	22.0
Azot Novomoskovsk	82.8	104.5
Metafrax	206.0	158.5
Sibmetakhim	199.7	252.7
Tomet	279.0	412.7
Shchekinoazot	101.5	96.6
Ammoni (Mendeleevsk)	33.3	65.8
Total	914.1	1112.8

Ammoni-changes under new ownership

The new ownership of Ammoni is examining product areas where to invest as pledged in the purchase of shares in the company. The production capacity of Ammoni is 720,000 tpa of both ammonia and urea, and 234,000 tpa of methanol. The new owners intend to increase the productivity of these plants by introducing organizational and technical measures aimed at optimizing the consumption of raw materials and energy saving. 46.43% of Ammonia shares are held by Tatammoniy LLC, which is believed to be controlled by Rinat Khanbikov through ZPIF.

Metafrax-formalin and paraformaldehyde projects

Metafrax has scheduled commissioning of the Formalin-3 installation and the paraformaldehyde installation with a capacity of 30,000 tpa for the second half of 2021. The Formalin-3 plant capacity is 180,000 tpa based on technology supplied by Dynea. The supplier of equipment and technology for the production of paraformaldehyde is GEA Process Engineering and the plant will produce grade A paraformaldehyde intended for the manufacture of plastics, paints, resins, adhesives, and insulating materials. The product is widely used in the production of chipboard and MDF as a binder polymer. The volume of the Russian market is estimated at 7-8,000 tpa.

Nakhodka Mineral Fertiliser Plant

Construction of the Nakhodka Mineral Fertiliser Plant (NZMU) in the Primorsky Krai continues to face controversy with the authorities attempting to assure the local residents that the methanol and fertiliser facilities present no danger to public health and the environment. Environmental groups in the area continue to argue plant cannot be built, but local contractors are working on the project design and it seems increasingly difficult for it to be stopped. To recap the project involves 1.8 million tpa of methanol.

The paraformaldehyde and formalin plants will increase the processing of methanol for Metafrax by around 90,000 tpa up to a total of 450,000 tpa by 2022. This would reduce the company's dependence on export and merchant sale activity. The construction of the paraformaldehyde plant will take about twelve months, and sixteen months are needed to build the formalin plant.

Skovorodino methanol project, terminal facilities and construction schedule

The ESN Group expects to sign an Agreement on the Protection and Encouragement of Capital Investment (SZPK) as part of the construction of a new methanol complex at Skovorodino in the Amur Oblast. The project budget is estimated at 50 billion roubles. The company has filed an application for converting an oil terminal into a methanol plant. The ESN group project involves the launch of production of 1 million tpa of methanol at Skovorodino, Amur Region. Johnson Matthey is the licensor. Initially, it was planned to start construction of a new methanol production plant in 2016, and to complete the work in 2019. In December last year, the terms of the project were shifted to 2018-2021.

Gas to the plant of around 1 billion cubic metres per annum will be supplied from the Power of Siberia gas pipeline, which runs in the immediate vicinity of the Skovorodino and is expected to be launched at the end of 2020. ESN has already signed a 25-year gas supply contract with Gazprom.

Russian N-Butanol Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Angarsk Petrochemical Company	17.8	15.5
Azot Nevinnomyssk	11.1	9.6
Gazprom neftekhim Salavat	41.0	40.1
SIBUR-Khimprom, Perm	19.5	26.4
Total	89.4	91.6
Russian Isobutanols Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Angarsk Petrochemical Company	10.9	9.1
Gazprom neftekhim Salavat	25.5	22.7
SIBUR-Khimprom, Perm	29.7	35.6
Total	66.0	67.5

Russian Butanol Domestic Sales (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Gazprom n Salavat	4.6	4.3
SIBUR-Khimprom	16.2	18.8
Angarsk Petrochemical Company	17.1	10.3
Azot Nevinnomyssk	1.8	1.3
Totals	39.7	34.6

Russian Butanol Consumption (unit-kilo tons)		
Consumer	***Jan-Aug 20***	***Jan-Aug 19***
Akrilat	11.3	12.0
Dimitrievsky Chemical	15.0	11.3
Kazanorgsintez	0.0	0.4
Volzhskiy Orgsintez	5.9	6.5
Roshalsjy Plant of Plasticizers	1.1	0.5
Others	6.4	3.8
Total	39.7	34.6

Russian Acetone Production (unit-kilo tons)		
Producer	***Jan-Aug 20***	***Jan-Aug 19***
Ufaorgsintez	26.1	23.8
Kazanorgsintez	33.6	21.1
Novokuibyshevsk Petrochemical	28.8	21.5
Omsk Kaucuk	16.5	0.0
Total	105.0	66.4

Russian Imports of isopropanol (unit-kilo tons)		
Country	***Jan-Aug 20***	***Jan-Aug 19***
China	17.100	2.400
US	3.380	2.420
Germany	2.050	2.350
Others	6.470	6.100
Total	29.000	13.500

Organic chemicals

Russian butanol production Jan-Aug 2020

Russian normal butanol production totalled 89,400 tons in January to August 2020, against 91,600 tons in the same period in 2019. Gazprom neftekhim Salavat was the largest Russian producer, producing 41,000 tons against 40,100 tons in January to August 2019. Isobutanol production in Russia dropped from 67,500 tons to 66,000 tons in the first eight months this year during which Gazprom neftekhim Salavat increased production to 25,500 tons from 22,700 tons, and SIBUR-Khimprom reduced from 35,600 tons from 29,700 tons.

Russian domestic butanol sales, Jan-Aug 2020

Whilst merchant butanol sales on the domestic market rose in the first eight months to 39,700 tons from 34,600 tons, demand underwent a significant fall in the second quarter due to the economic effects resulting from COVID-19. The largest supplier of butanols to the domestic merchant market in the first eight months in 2020 was Angarsk Petrochemical which shipped 17,100 tons against 10,300 tons in the same period in 2019. Most of the butanols produced at Angarsk are sold on the merchant market

The largest butanol buyer on the domestic market in the first eight months in 2020 was Dimitrievsky Chemical which took 15,000 tons against 11,300 tons in 2019 whilst Akrilat at Dzerzhinsk reduced purchases from 12,000 tons to 11,300 tons.

Russian acetone production & exports, Jan-Aug 2020

Russian acetone production increased in the first eight months in 2020 to 105,900 tons against 66,400 tons in the same period in 2019. Omsk Kaucuk produced 16,500 tons of acetone from the modernised plant which started up in late 2019. This plant has been the main difference to total production this year.

Acetone exports totalled 33,700 tons in the first eight months in 2020 against 18,200 tons in the same period in 2019. Revenues rose from $7.2 million to $13.2 million. The domestic market is also benefiting from upward pressure from European prices and all producers have increased prices in the past few months. Omsk Kaucuk was the most expensive source in October, priced at 105,000 roubles per ton. The rise in prices has led some buyers to replace expensive acetone with other raw materials, where technology allows.

Titan-cumene and isopropanol projects Omsk

Titan is yet to announce timing of the start-up of the isopropyl alcohol plant under construction at Omsk but is focused currently

on the completion of the cumene upgrade on a zeolite catalyst. The plant's capacity for cumene will increase by 33% to 160,000 tpa, whilst the production capacity of the new plant for isopropyl alcohol will be 75,000 tpa.

Tatneft-maleic anhydride project receives first approval

Tatneft has received a further positive approval from the state environmental body Glavgosekspertiz for the maleic anhydride project, to be located at Minnibayevo. The review also includes off-site facilities. Tatneft's investments in the construction of a 50,000 tpa plant for the production of maleic anhydride could amount to around 6.6 billion roubles occupying an area of seven hectares to be located within the current boundaries of the Minnibayevo gas processing plant. The production is to be based on technology from the Italian company Conser, the same as SIBUR which is constructing a similar plant at Tobolsk. The launch of the unit is scheduled for 2023, previously announced plans for an accelerated commissioning of production in 2021. Tatneft confirms that the construction permit for the facility was obtained on 28 September from the Almetyevsk municipal district where the plant is to be located.

Russian Imports of maleic anhydride (unit-kilo tons)

Country	*Jan-Aug 20*	*Jan-Aug 19*
China	3.410	2.720
Taiwan	0.120	0.520
Germany	0.385	0.210
Others	0.275	0.230
Total	4.110	3.468

Other products

Russian TDI-MDI imports, Jan-Aug 2020

Russian TDI imports dropped to 30,900 tons in the first eight months in 2020 against 32,300 tons in the same period last year. Values of Russian TDI imports dropped from a total of $63.4 million to $53.7 million.

Russian TDI Imports (unit-kilo tons)

Country	*Jan-Aug 20*	*Jan-Aug 19*
Belgium	0.3	0.8
China	2.7	1.6
France	0.0	0.3
Germany	10.2	6.7
Hungary	6.7	6.2
Italy	0.1	0.0
Japan	0.8	1.1
Netherlands	1.0	1.1
Saudi Arabia	4.1	6.5
South Korea	2.7	1.0
Turkey	0.2	0.2
US	0.5	7.2
Total	30.9	32.3

Germany was the largest supplier shipping 10,200 tons in the first eight months of 2020 against 6,700 tons in 2019. Other important suppliers included Hungary which increased TDI shipments to Russia to 6,700 tons against 6,200 tons in January to August 2019 and Saudi Arabia which reduced from 6,500 tons to 4,100 tons. Around 43% of TDI imports were sold into the Moscow region followed by Tatarstan with 16.1%.

MDI imports into Russia amounted to 97,200 tons in the first eight months in 2020 against 102,200 tons in the same period last year with values dropping from $157.6 million to $133.5 million. Saudi Arabia was the largest supplier accounting for 25.4%, shipping 18,910 tons in the first eight months in 2020 against a similar volume last year. This was followed by China with 24.5% and the Netherlands with 19%. The largest region for Russian MDI imports this year has been the Vladimir Oblast accounting for 21,300 tons or 29.7% followed by Moscow with 16,600 tons.

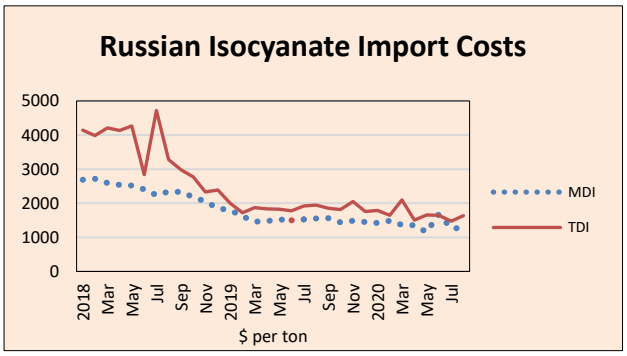
Russian Imports of MDI (unit-kilo tons)

Country	*Jan-Aug 20*	*Jan-Aug 19*
Belgium	10.3	10.8
China	20.8	22.1
Germany	13.7	10.9
Hungary	2.5	5.0
Japan	1.4	1.6
Netherlands	19.4	22.7
Saudi Arabia	27.6	26.2
South Korea	1.5	1.6
Others	0.6	1.3
Total	97.8	102.2

Isocyanate prices

In August-September global prices for isocyanates increased due to tightened supply. Several of the largest producers (BorsodChem, Wanhua, BASF) suspended production for maintenance, whilst a force majeure situation occurred at the Covestro plant at Dormagen halting production. The resulting shortages helped increase prices by around 20% in the second part of the third quarter. Flexible and rigid foam producers have grappled with shortages of isocyanates and polyols feedstock, strong demand and sharp increases in pricing for October.

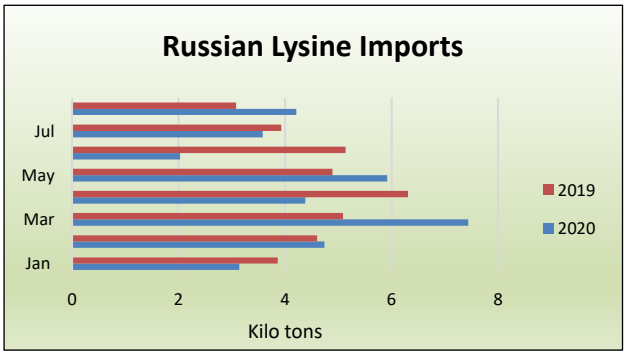
TDI prices are estimated to have risen in October by around €300/ton from September, whilst polyol contracts climbed to levels not seen since 2015. It was the fourth consecutive monthly increase in TDI contract prices, which are now at levels last seen in 2018. Crude or polymeric MDI (PMDI) contracts for October rose €50/ton at the lower end and €70/ton at the upper end of the range, to €1,600-1,900/ton. Monomer MDI price rose €50-100/ton in October to €1,850-2,100/ton.



According to reports, foam producers in Europe have been struggling with delayed feedstock orders, and in some cases have had to cancel their customer orders. Demand for flexible foams is strong and has been supported by a boom in home improvement linked to coronavirus pandemic lockdowns. As a result of market tightness market players expect to see an upward trend in Russian isocyanate import costs in September and October after struggling at low levels for most of 2020.

Russian lysine market 2020

In the first eight months in 2020 Russian imports of lysine totalled 35,440 tons against 36,000 tons in the same period in 2019. Brazil supplied 33.2% of imports in January to August this year followed by China with 27.8% and France with 13.6%.



Imports have been generally falling in the past few years as production has increased but have stabilised this year due to delays in new capacity being brought on stream. Russia could turn itself into a net exporter if it can complete the Donbiotech project in the Rostov area which has been faced by bankruptcy issues. The cost of the project has increased in the past year by 12 billion roubles due to the change in technology provided by Evonik (the main partner of Donbiotech), and an increase in the capacity of the enterprise.

Donbiotech Project Costs		
Initial cost 2010	***Mid-term revised cost 2016***	***Latest cost July 2020***
7 billion roubles	15 billion roubles	27 billion roubles

The project started back in 2010 and, according to the original plan, was to be completed in 2013. As deadlines were postponed regularly for various reasons, from conflicts with energy monopolies to the financial crisis, project costs rose. At the end of March 2019, external management was introduced at Donbiotech.

Regarding other developments in the lysine market a plant is under proposal for construction will be built in the Krasnoyarsk Krai in East Siberia to produce bioplastic from wheat. Polylactide produced from wheat can replace most of the traditional plastics used for the manufacture of disposable packaging and tableware, which will partially solve the issue of environmental pollution. The capacity of the deep processing complex comprises 250,000 tpa of wheat grain which will provide the source for producing 30,000 tpa of polylactide. The project also includes 40,000 tpa of lysine chloride, 21,000 tpa of gluten, 53,000 tpa of concentrate with 55% protein content. The enterprise will be located in the Sharypovsky district of the Krasnoyarsk Territory, where a large amount of wheat of the third and fourth classes is produced.

Ukraine

Ukrainian polymer imports & production, Jan-Aug 2020

In the first eight months of the year, polypropylene imports into the Ukrainian market amounted to 88,800 tons, against 90,100 tons in the same period in 2019. Homopolymer imports dropped from 69,300 tons to 68,300 tons whilst imports of block copolymers dropped from 9,100 tons to 8,800 tons.

Inward shipments of random copolymers dropped from 10,600 tons to 10,200 tons whilst imports of other copolymers amounted to 1,400 tons.

Polyethylene imports to the Ukrainian market amounted to 182,300 tons in the first eight months in 2020 against 178,400 tons in January to August 2019. HDPE imports rose to 66,500 tons against 63,800 tons, whilst LDPE imports totalled 54,500 tons against 52,200 tons. LLDPE imports totalled 51,900 tons in the first eight months against 54,000 tons in the same period last year. Imports of other types of polyethylene, including ethylene vinyl acetate amounted to 9,400 tons against 8,400 tons in January to August 2019.

Ukrainian Polymer Imports (unit-kilo tons)		
Product	***Jan-Aug 20***	***Jan-Aug 19***
PVC	25.0	31.3
PET	12.4	111.3
LDPE	31.6	53.4
LLDPE	51.9	38.8
HDPE	66.6	63.0
Ethylene Vinyl Acetate	9.4	8.4
PP	88.8	94.2

PVC imports into Ukraine dropped 20% in the first eight months to 25,000 tons against 31,300 tons in the same period last year. At the same time, the high level of capacity utilization allowed Karpatneftekhim to increase export volumes, rising to 111,000 tons in the first eight months against 106,400 tons in January to August 2019.

Karpatneftekhim, Jan-June 2020

Karpatneftekhim began repair work on the benzene unit on 7 October with production being discontinued for approximately 45 days. The company has the capacity to produce 250,000 tpa of ethylene, 117,000 tpa of propylene and 72,000 tpa of C4s.

Karpatneftekhim increased exports of propylene in the first eight months in 2020 from 56,100 tons to 66,300 tons, whilst benzene exports dropped from 43,800 tons to 42,969 tons. The largest share of propylene shipments was exported to Poland. Karpatneftekhim has encountered several stoppages this year due the high cost of raw materials combined with low prices for polyethylene.

Karpatneftekhim Petrochemical Exports (unit-kilo tons)		
Product	**Jan-Aug 20**	***Jan-Aug 19***
Propylene	66.3	56.1
Benzene	43.0	43.8

Ukraine imposed a duty of 18% on imports of polyethylene and PVC in May regardless of the country of origin and export. Whilst the decision favours Karpatneftekhim, which had requested the introduction of protective duties, some processing companies in Ukraine are disadvantaged in that purchasing polymers is now more expensive. Karpatneftekhim occupies around 50% of the Ukrainian markets for polyethylene and PVC, but processors state it is important to keep markets open.

Central Asia/Caucasus

Azerbaijan polypropylene exports Jan-Aug 2020

In January-August this year, Azerbaijan exported 89,700 tons of polyethylene for $58.2 million, amounting to 5.05% of the country's non-oil exports. LDPE is produced in Azerbaijan at Azerkhimya and HDPE at the SOCAR Polymer plant, which was commissioned in February last year.

Azerbaijan Polyolefin Exports Jan-Aug 2020		
Product	***Kilo tons***	***$ million***
Polyethylene	89.7	$58.2
Polypropylene	50,599	$39.9

Azerbaijan, polypropylene is produced at the SOCAR Polymer plant, which was commissioned in July 2018. The design capacity of the plant is 184,000 tpa. In February 2019, the company put into operation a HDPE plant with a capacity of 120,000 tpa.

SOCAR Methanol Production & Exports (unit-kilo tons)		
	Jan-Aug 20	***Jan-Aug 19***
Production	334	277.4
Exports	301.2	247.8

Azerbaijan methanol exports Jan-Aug 2020

SOCAR methanol plant exported $30.123 million worth of methanol in the period January-August 2020 for a total volume of 301,229 tons. The share

of methanol in the total export volume in the reporting period was 0.3%, and in the structure of non-oil exports 2.61%. In 2019, the SOCAR Methanol plant produced 383,000 tons of methanol and the company hopes to produce 480,000 tons in 2020. The plant's production capacity is 720,000 tpa of methanol.

Turkmenistan polyolefin sales Jan-Aug 2020

The quantity of polyethylene sales at the state commodity and raw materials exchange in Ashgabat increased by 93,300 tons in January-August 2020 over the same period in 2019 to a total of 128,500 tons. The rise was due to higher production by the gas chemical complex Turkmengaz at Kiyanly.

Turkmenistan Polyolefin Sales (unit-ktons)		
Product	***Jan-***	***$ million***
Polyethylene	128.5	35.2
Polypropylene	61.5	129.3

At the same time, sales of polypropylene from Turkmenistan fell from 129,300 tons to 61,500 tons. The Turkmenbashi refinery reduced sales of polypropylene due lower capacity utilisation which itself was accountable to reduced demand for petroleum products resulting from the COVID-19 epidemic. This fall at the Turkmenbashi polypropylene plant was partially offset by an increase in polypropylene production at the Kiyanly gas-chemical complex.

Lummus to increase ethylene capacity at Shurtan

Lummus Technology has signed a contract with Enter Engineering as part of the Shurtan Gas Chemical Complex project in Uzbekistan. The company will be responsible for the design and supply of equipment for pyrolysis. Lummus will supply equipment for four pyrolysis furnaces at Shurtan using patented technology, which will increase the production of ethylene by more than twice to 270,000 tpa.

At the end of 2018, Enter Engineering Pte Ltd, a subsidiary of Gazprombank, and Uzbekneftegaz signed an EPC contract to expand the capacity of the Shurtan gas-chemical complex. The project involves the development of new types of polyethylene and polypropylene. By 2021, the plan is to put into operation additional capacity for the production of 280,000 tpa of polyethylene and 100,000 tpa of polypropylene. In the first half of 2020, natural gas processing at the Shurtan Complex totalled 2.1 million cubic metres (110.2% of the plan), production of gas condensate 52,989 tons (118.5% of the plan), and polyethylene 66,970 tons.

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