Chemical Information Resources for East Europe and CIS

CIREC MONTHLY NEWS

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

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Issue 334, 17 Sep 2018

Key pointers from this month's issue

Central Europe

PKN Orlen completed the full takeover of Unipetrol in August, allowing the group to press ahead with its strategic programme over the next decade in petrochemicals. The broader aim is to transform Poland's chemical industry into a net exporter rather than importer. MOL in Hungary has approved its project plans for polyether polyols, signing agreements with Thyssenkrupp.

Propylene imports into Poland totalled 82,500 tons in the first five months in 2018, with Ukraine providing over 32,000 tons. Grupa Azoty remains the largest consumer of imported propylene in Poland, used for the production of oxo alcohols, whilst PCC Rokita imports propylene for the production of propylene oxide. PCC Rokita increased its net profit by 44% in the first half of 2018, with the chlorine division providing the main stimulus and polyols less profitable due to rising raw material costs. The Romanian producer of polyols, Oltchim, also encountered difficulties from higher propylene costs in addition to ethylene oxide. Notwithstanding, Oltchim still reported a threefold rise in net profits which similarly to PCC Rokita was driven by the success in choralkalis.

Russian chemical production

Russian petrochemical production has continued to be steady this year, with output of the main monomers and polymers reflecting slight rises above 2017. Propylene and benzene have seen the largest rises this year due to higher utilisation levels, whilst most of the mainstream polymers have shown smaller rises. Ammonia production increased by 1 million tons in the first seven months in 2018, facilitating a significant rise in nitrogen fertiliser production. Second quarter production data for main Russian chemical plants can be accessed at the Statistical Database at www.cirec.net.

Russian chemical trade

Russia's trade deficit in chemical products fell in the first half of 2018 to $10.2 billion from $10.9 billion in the same period in 2017. The reduced deficit can be attributed to a number of factors such as increased domestic production in certain product areas and slow-moving activity in some sectors of chemical applications. In polymers and rubber, Russia expects to increase export trade over the next few years as new capacity is introduced. Much less change is expected in areas such as fine chemicals, etc.

Russian chemical projects & competition

SIBUR had achieved 65% progress in construction of the DOTP plasticizer project at Perm by the end of August. The new plant is expected to start in 2019 and is expected to have a major effect on the market for 2-ethylhexanol in Russia. Gazprom neftekhim Salavat is planning to develop superabsorbents from acrylates which would extend the production from petrochemicals through to consumer products. This tends to be the exception rather than the rule which helps to explain the huge trade deficit by value in chemical products for the Russian market. New projects recently started in Russia, or in the process of commissioning include dimethyl ether plants by Aerosolex at Dzerzhinsk and Shchekinoazot in the Tula Oblast. In Turkmenistan the new Kiyanly petrochemical complex on the Caspian coast started production in late August.

CENTRAL & SOUTH EAST EUROPE

PKN Orlen-Unipetrol & strategic emphasis on petrochemicals

PKN Orlen secured full control of its Czech unit Unipetrol on 29 August, ending years of minority shareholder disputes and removing one of Prague's biggest stocks from the exchange. Unipetrol shareholders, as expected, approved the forced buyout of the company's remaining minority shareholders by PKN Orlen, which owns 94%, but not without a fight over the offer price. The-buyout-out follows a voluntary buyback completed in February in which PKN Orlen offered Unipetrol shareholders Kc 380 a share, paying Kc 21.4 billion ($953 million) to raise its stake from 63%.

Polish Propylene Imports 2018 (unit-kilo tons)

Country	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jan-May*
Azerbaijan	0.9	0.0	1.0	0.8	0.8	3.5
Czech Republic	1.1	1.1	2.2	0.0	0.0	4.4
Germany	6.5	7.4	2.8	6.4	4.3	27.3
Hungary	1.0	1.0	1.0	1.4	1.1	5.6
Russia	4.0	0.8	1.0	2.7	1.1	9.6
Ukraine	5.4	6.2	9.6	6.7	4.3	32.2
Total	18.9	16.5	17.6	18.0	11.5	82.5

The full acquisition of Unipetrol is part of Orlen's wider strategic programme to develop its petrochemical division, with the aim of transforming the Polish petrochemical sector from net importer to net exporter.

Poland remains heavily dependent on propylene imports, which amounted to 82,500 tons in the first five months this year. Projects being undertaken by Grupa Azoty and PKN Orlen may help to reverse this import dependency, but there remain many other areas where the shortage of domestic production provides investment opportunities for domestic chemical producers.

Petrochemical margins are seen moreover by PKN Orlen to be much higher than refining margins, and consequently efforts are underway to increase petrochemical production. Aside the new polyethylene plant in the Czech Republic, Orlen wants to build an installation for the production of polypropylene at Mazeikiai in Lithuania. Orlen accordingly has received the first orders for products from both of these investments. Orlen's other investment plans include the expansion of olefins and the phenol installation. The group wants to introduce the so-called proof of identity for petrochemicals, thus following the entire process from the moment of production through to disposal.

Unipetrol-outage

From the beginning of September Unipetrol started a planned stoppage for the steam cracking system at Litvinov, meaning that the entire petrochemical complex will be closed for the month at a cost around Kc 180 million. Work will also be stopped at two polyethylene units and polypropylene. The stoppage is scheduled to last from 3 to 30 September, during which maintenance and modernisation works will be carried out. The resumption of production is planned for the period 25 September-2 October and full production capacity should be recovered in the first week of October.

Unipetrol-commissioning of the PE3 polyethylene installation

The commissioning of the PE3 polyethylene installation in the Czech Republic will start in December. The process will last about three months before product is shipped to the market. The production capacity of the PE3 unit will amount to 270,000 tpa and will replace the PE1 unit, while the PE2 unit (200,000 tpa) will continue to function. Unipetrol states that due to the new technologies used in PE3, it will be possible to move into new markets such as the cosmetics and packaging industries.

Rompetrol Rafinare Olefin Processing (unit-kilo tons)

	Jan-Jun 18	*Jan-Jun 17*
Propylene	78	60
Ethylene	35	28

Refineries in Central Europe

Refinery throughput in Central and South East Europe totalled 41.6 million tons in the first half of 2018, up from 38.7 million in the same period last year. PKN Orlen's Plock refinery increased processing in the first half of 2017 from 7.5 million tons versus 8.2 million tons in the same period his year, whilst Slovnaft also increased refining volumes from its refinery at Bratislava. The Petromidia refinery in Romania increased processing by around 27.44% in the first half 2018 to 3.080 million tons. The Petromidia refinery belongs to Rompetrol Rafinare which increased polyolefin production by 26% in the first half of 2018 to 81,644 tons against 64,490 tons. The petrochemical division of Rompetrol Rafinare is the sole producer of polyolefins in Romania and sells around 50% on domestic markets and the remaining 50% from regional markets.

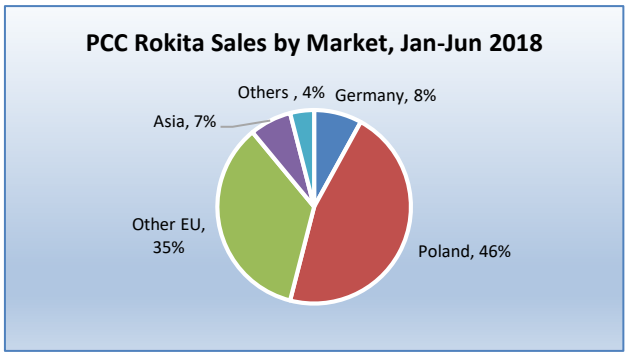
Czech Petrochemical Exports (unit-kilo tons)		
Product	***Jan-Jul 18***	***Jan-Jul 17***
Ethylene	52.3	32.7
Propylene	9.4	12.8
Butadiene	0.2	2.7
Benzene	21.0	12.4
Toluene	9.6	6.8
Ethylbenzene	83.0	73.2

Czech petrochemical trade Jan-Jul 2018

Czech ethylene exports totalled 52,300 tons in the first seven months in 2018 against 32,700 tons in the same period in 2017, whilst propylene exports dropped 9,400 tons from 12,800 tons. Whilst ethylene imports into the Czech Republic almost ceased completely in the first seven months in 2018, propylene inward shipments rose to 28,714 tons from 25,300 tons in January to July 2017. Propylene imports were sourced mostly from the EU, including Germany, the Netherlands and Poland, whilst non-EU imports came from Petrohemija in Serbia. Nearly all Czech ethylene exports went to Germany.

PCC Rokita-Jan-Jun 2018

The sales revenue of PCC Rokita Group in the first half of 2018 increased by 13.7% to zl 663.8 million. The EBITDA rose 31% and the net profit rose by 44% to zl 108.1 million. The gross margin on sales in the first half of 2018 rose 2% to 29.5%, with the chlorakali division acting as the major contributor to the higher margin. The conversion of chlorine production carried out by PCC Rokita three years ago has allowed for growing sales of chlor-alkali products at a time where some of the producers have abandoned conversion.



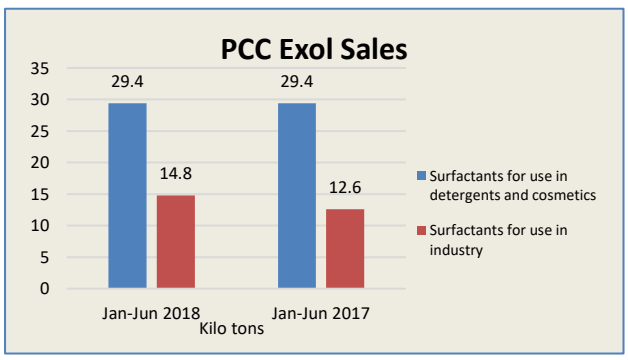
The second major segment of PCC Rokita is polyurethanes, which recorded a 12% increase in sales value in the first half of 2018 despite higher raw materials and lower demand for manufactured products.

PCC Rokita Product Sales (unit-kilo tons)		
Product	***Jan-Jun 18***	***Jan-Jun 17***
Chloralkalis	147	140
Polyols	43	43
Other Chemicals	12	12

In the polyurethanes division, the rising raw material prices were only partially translated into product prices. The limited availability of TDI helped reduce the demand for polyols. There was also a decrease in the demand for polyols caused by the furniture industry using alternative solutions, based on spring mattresses requiring the consumption of less foam. Poland remains a net importer of polyols, shipping 193,000 tons inwards in 2017 against 199,800 tons in 2016. Germany and the Netherlands were the two most important sources of imports, as similarly with exports which totalled 65,100 tons in 2017 against 60,300 tons in 2016.

Polish Polyol Trade (unit-kilo tons)		
	2017	***2016***
Exports	65.1	60.3
Imports	193.0	199.8

On the market of raw materials for the production of polyether polyols throughout the entire first half of this year. there was an upward trend in prices including propylene which directly translated into higher costs of propylene oxide. Earlier in 2018 PCC Rokita concluded the purchase of the extra 25% stake in IRPC Polyol share sale agreement in Bangkok.



Regarding propylene supply, PCC Rokita signed an agreement in January this year with Ruhr-Petrol GmbH. The estimated value of the Agreement during its term is net €13.95 million.

PCC Exol, Jan-Jun 2018

PCC Rokita subsidiary PCC Exol reported better profits in the first half of 2018 despite rising costs for ethylene oxide and fatty alcohols. In the past year, Exol started an expansion of capacity by 15,000 tpa which will allow the company to increase sales and introduce new, technologically advanced products. The completion of this investment is planned for 2020. Ethylene oxide is sourced

mainly by PCC Exol from Orlen, representing 10% of the company's expenses under a long-term contract. Purchases of fatty alcohols in 2017 were carried out on short-term contracts from South-East Asia and from West Europe.

MOL to proceed with plans for polyols and propylene glycol

MOL has reached a final investment decision on Polyol Project has signed an EPC contracts with Thyssenkrupp. The EPC contracts cover the entire technical scope of the Polyol Project. Ground works and basic construction activities are set to begin already in Q4 2018.

Polish Chemical Production (unit-kilo tons)		
Product	***Jan-Jul 18***	***Jan-Jul 17***
Caustic Soda Liquid	202.2	207.9
Caustic Soda Solid	35.2	47.1
Ethylene	306.9	278.7
Propylene	186.8	201.0
Butadiene	34.0	34.3
Toluene	7.9	13.9
Phenol	27.6	25.2
Caprolactam	95.4	93.9
Acetic Acid	9.2	11.5
Polyethylene	229.6	195.9
Polystyrene	37.2	33.3
EPS	44.3	54.9
PVC	151.7	173.1
Polypropylene	165.0	159.1
Synthetic Rubber	161.2	134.8
Ammonia (Gaseous)	1503.0	1683.0
Ammonia (Liquid)	77.4	56.2
Pesticides	31.8	31.9
Nitric Acid	1347.0	1387.0
Nitrogen Fertilisers	1138.0	1201.0
Phosphate Fertilisers	242.8	276.7
Potassium Fertilisers	237.9	259.8

The Polyol Project is MOL's currently largest investment and it will become the only fully integrated polyol producer in Central Europe. The extension of the petrochemical value chain towards semi-commodity and specialty chemicals products is part of MOL's 2030 transformational strategy.

The new chemical complex will have a polyether polyol production capacity of 200,000 tpa, larger than originally envisaged and will be capable to produce a wider range of end-products than previously foreseen. It will also include a propylene glycol production unit to maximize operational and commercial flexibility. The total CAPEX of the Polyol Project is €1.2 billion, including already incurred costs.

The new manufacturing complex will be built at Tiszaújváros and is planned to be operational by the second half of 2021. The new polyol complex is an important flagship project both for Thyssenkrupp and MOL.

In line with its 2030 strategy, MOL Group will move further along the petrochemical value chain towards semi-commodity and specialty chemicals products, transforming into a leading chemical group in Central Europe. Polyether polyols, which serve as feedstock for polyurethane foam, were identified as the main direction in MOL's petrochemical expansion due to their wide applications in the automotive, construction, packaging and furniture industries. Through this key investment MOL aims to become a strategic partner of polyurethane producers, building on its fully integrated value chain.

Oltchim Jan-Jun 2018

In the first half of 2018 Oltchim's capacity utilisation rate for caustic soda production ran at 100%. For propylene oxide, the utilisation rate ran at 70% of the production capacity, and the production of polyethers averaged 65% of the capacity. The oxo-alcohols division at Ramnicu Valcea operated at about 75% of the production capacity.

Oltchim's Sales Revenues (€ mil)		
	Jan-Jun 18	***Jan-Jun 17***
Polyether Polyols	67.1	62.1
Chlorine division	33.8	21.8
Oxo alcohols	19.3	15.5
Other	4.2	1.8
Total	124.5	103.5

Oltchim reported revenues of 577 million lei in the first half of the year, up 20% over 2017, and net profit rose three times to 84 million lei. Exports in the first half of 2018 rose 20% to €98.7 million from €82 million and the gross profit of 102.7 million lei increased 2.8 times from 36.7 million lei. Under these conditions, the EBITDA of 126.7 million lei meant a doubling of the value against Q1 2017 (61 million lei).

In the first half of 2018 the price of propylene, which is the main raw material for Oltchim, increased by 8.4% compared to the first half of 2017. The price of two other main raw materials ethylene oxide rose by 8% and by glycerine by 48.5%.

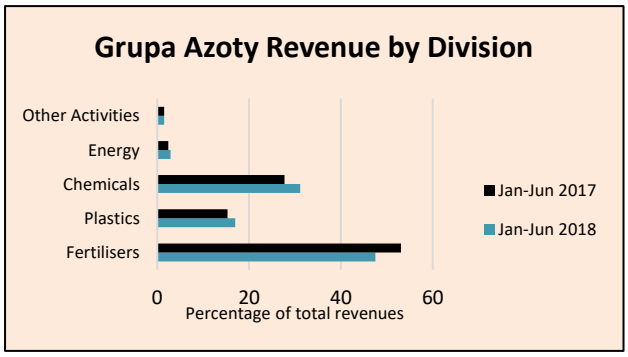
The rise in sale prices for liquid and solid caustic soda as a result of the reduction in European production after the closure of the plants using mercury technology allowed the company to achieve high profit margins, especially in the fourth quarter of 2017 and the first quarter of 2018. At the same time, by efficiently targeting sales for the main types of polyols, Oltchim managed to fully mitigate the price increases for raw materials and to improve profitability.

Oltchim undertook a general maintenance shutdown from 1 to 11 September. The completion of the acquisition of Oltchim's most important assets were expected to be completed by 17 October 2018, although that situation may be subject to change. Regarding other Oltchim assets which are up for sale, four companies have submitted indicative bids including the Bradu Petrochemical Division (Package 8), the phthalic anhydride plant at Ramnicu Valcea (Package 9) and partially the PVC II plant at Ramnicu Valcea (Package 7). Aiotec based in Berlin has submitted offers for the PVC II and Bradu Petrochemicals Division, Nimir Chemicals in Pakistan for the phthalic anhydride plant, Vynova Holding in Luxembourg for all three packages and Mata Chemicals in Pakistan for the phthalic anhydride Plant.

Grupa Azoty, Jan-Jun 2018

Grupa Azoty's revenues increased in the second quarter to zl 2.38 billion from zl 2.18 billion in the same period in 2017. In the first half of the year, the group's revenues amounted to zl 4.88 billion compared to zl 4.87 billion a year earlier. The 26% decline in operating profits (EBITDA) by 185 million was encountered predominantly due to higher raw material costs.

Grupa Azoty's net profit after the first half of 2018 amounted to zl 132.7 million, and without one-off events zl 175.2 million but still significantly down on 2017. Large increases in the prices of natural gas were recorded, resulting in a rise in operating costs by more than zl 46 million. At the same time, an unfavourable downward trend in market prices of ammonia worked against Azoty. The negative EBIT result of the fertiliser division resulted from the imbalance between higher gas prices and fertiliser prices. On the other hand, in the pigments segment (zl 218 million revenue, 18% share in the group's revenue) the EBIT increased by 65% up to zl 56.1 million, due to good market conditions for titanium white.



Grupa Azoty-raw material purchases, Jan-Jun 2018

The 36% increase in oil prices affected the prices of most petrochemical commodities for Grupa Azoty in the first half of 2018 although the average prices of benzene and phenol were lower by 10% and 5%. In the first half of 2018, the prices of caprolactam in Asia achieved €2,098/ton and were 9% higher than in 2017. Caprolactam prices in Europe rose by as little as 1% in the period, to €2,140/ton.

The bulk of the group's purchases of propylene are made under annual contracts, with supplementary purchases made on the spot market. To a large extent, propylene prices are driven by oil prices. The group pursues a diversified procurement strategy, based chiefly on supplies from the EU and countries east of Poland. Supplies from the latter largely reduce the overall cost of propylene procurement.

Czech Plasticizer Alcohol Trade (unit-kilo tons)

Product	*Jan-Jul 18*	*Jan-Jul 17*
Phthalic anhydride	10.1	10.3
DOP	0.0	6.3
Dinonyl or didecyl orthophthalates	23.2	21.3

Czech plasticizer alcohol trade

Deza resumed production at the phthalic anhydride plant in Valasske Mezirici on 23 August after scheduled preventive measures. Technical maintenance at this enterprise with the total capacity of two lines of 48,000 tpa (36 and 12,000 tpa) was launched on 28 July. Earlier it was noted that the company, according to schedule, restarted the plasticizer plant at Valasske Mezirici with a capacity of 60,000 tpa of dioctyl phthalate (DOP) and diisononyl phthalate (DINF) a year after the planned repair, which was started also on 28 July.

Russia

Russian Chemical Production (unit-kilo tons)		
Product	***Jan-Jul 18***	***Jan-Jul 17***
Caustic Soda	736.5	704.6
Soda Ash	2,000.0	1,977.0
Ethylene	1,759.0	1,736.0
Propylene	1,133.1	1,189.8
Benzene	842.8	802.4
Xylenes	313.4	290.7
Styrene	426.0	403.2
Phenol	100.9	124.5
Ammonia	10,600.0	9,600.0
Nitrogen Fertilisers	6,343.0	5,808.0
Phosphate Fertilisers	2,337.0	2,004.0
Potash Fertilisers	4,924.0	4,928.0
Plastics in Bulk	4,778.0	4,538.0
Polyethylene	1,306.0	1,205.0
Polystyrene	313.0	317.6
PVC	582.4	554.0
Polypropylene	883.0	863.0
Polyamide	101.9	92.8
Synthetic Rubber	974.0	938.0

Russian chemical markets, Jan-Jul 2018

The production of chemicals in Russia declined 1.1% in July compared to June, partly influenced by ethylene shutdowns. Overall for the period January to July 2018 the production of base chemicals rose 3.3% over the same period in 2017, with the largest increases recorded for benzene, ammonia and caustic soda.

In July, 237,000 tons of ethylene was produced in Russia, compared to 255,000 tons in June. The main reason for the lower production was that capacities of Angarsk Polymer Plant and Tomskneftekhim were both idle in July. In the first seven months of the year, 1,759,000 tons of ethylene was produced, which is 1% more than in 2017. The production of benzene in July rose to 117,000 tons against 115,000 tons in June. July volumes of caustic soda amounted to 106,000 tons which was down slightly against 107,000 tons due to a shutdown at Sayanskkhimplast. In January-July, the total production of caustic soda increased 2.5% to 736,500 tons. In the first seven months of this year, Russian enterprises produced 13.645 million tons of fertilisers, which is 3.1% more than in 2017. The most significant increase was in the production of nitrogen fertilisers, an increase of 7% over the previous year.

SIBUR IPO

SIBUR remains in consideration over whether to proceed with a public listing this year, that if executed could represent Russia's biggest for more than a decade. SIBUR is in talks with banks about an initial public offering worth about $2 billion-$2.5 billion. The situation is made more complicated by the uncertainty surrounding future sanctions coupled with a difficult period for Russia's financial markets over the past few months.

If the SIBUR IPO is approved and the sale surpasses the $2.24 billion raised by Rusal in 2010, SIBUR would be Russia's largest IPO since VTB's $8 billion listing in 2007. One main reason why SIBUR's management would seek a listing and a fair market price would be to stop arguments over whether the management is doing a good job or not. Discussions involve floating 10-15% of the company with the vast majority of shares being sold by its largest shareholder. Convincing investors of the potential of SIBUR could depend on emphasising the attraction of the ZapSibNeftekhim polymer production plant at Tobolsk. Possibly SIBUR could wait until ZapSibNeftekhim's construction has been completed before the IPO is approved, but equally this would require delays in finding new investors.

Russian Petrochemical Projects

ZapSibNeftekhim update, September 2018

In August 2018, Sibur concluded 181 contracts with 82 Russian enterprises for the supply of equipment and building materials for ZapSibNeftekhim. The overall progress in the construction of ZapSibNeftekhim amounted to 81.2% in June. The design was completed by 99.9%, construction and installation work by 71.6%. The supply of materials and equipment is 96.5% complete.

The ZapSibNeftekhim complex could provide an important stimulus to packaging and plastics converters in West Siberia, particularly including sub-regions Tyumen Region, Ugra and Yamal. For several years already, the Tyumen Region has seen a number of enterprises working on polypropylene supplied from SIBUR Tobolsk. The construction of the propylene and polypropylene plants which already operate at Tobolsk makes it possible not only to rationally use associated gas from the fields of Ugra and Yamal, thereby reducing the amount of flaring and reducing the harm to the environment.

The SIBUR gas processing plants in the Ugra and the Yamal regions process associated gas in into NGL (wide fraction of light hydrocarbons) and SOG (dry stripped gas) and are sent to Tobolsk for further processing. Tobolsk is connected to Purovsky by a feedstock pipeline with a length of 1,100 km that supplies the feedstock for the production of polypropylene. The construction of ZapSibNeftekhim complex will increase the amount of associated gas that is used for petrochemicals production.

Irkutsk Oil Company-gas processing plant

Irkutsk Oil Company (INK) plans to complete construction and installation works in a gas fractionating plant at Ust Kut by February 2020. The plant is to be linked to gas fields in the north of the Irkutsk Oblast by a 196 km pipeline and will thus lay the basis for subsequent petrochemical investments. Project construction for the gas processing plant will begin on 28 September 2018, and finish on 26 February 2020. Commissioning works will take three months and are scheduled to be completed on 26 May.

Gazprom neftekhim Salavat MTO Project

- Memorandum for project signed with Wison Engineering China
- Gas processing plant capacity of 2.5 bil cm per annum
- Polyethylene capacity 416,000 tpa
- Polypropylene capacity 617,000 tpa

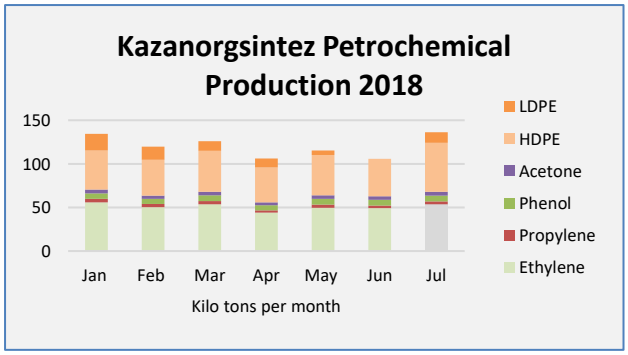
New olefin complex for Salavat

Gazprom has outlined plans to build a complex at Salavat for processing gas into olefins. Gazprom neftekhim Salavat has already started developing a feasibility study for the project. On 12 September Gazprom neftekhim Salavat and Chinese company Wison Engineering signed a memorandum of cooperation for the project processing natural gas in ethylene and propylene, followed by polyolefins. Such a complex for gas processing will be the first in Russia and can serve as a pilot project with subsequent broad introduction into the domestic gas chemical industry.

The process being examined is from methanol (MTO) and the further redistribution of methanol to olefins (ethylene and propylene), and the subsequent release of polymer products. Provisional capacities for the complex include 2.5 billion cubic metres of gas per annum. This will provide the basis to produce an additional 416,000 tpa of polyethylene and 617,000 tpa polypropylene.

Kazanorgsintez investments in energy

Kazanorgsintez has outlined plans to invest 16.5 billion roubles in the construction of a combined-cycle plant (CCP) with a capacity of 250 megawatts. The construction of a combined-cycle plant with a total electric capacity of 250 MW at the site of Kazanorgsintez is envisaged. It is assumed that the general contractor will build the CCGT on a turnkey basis by February 2019. The deadline for applications is 30 November 2018. In 2017, Kazanorgsintez carried out measures to reduce the consumption of steam from the external source Kazan CHP-3 and increase its own steam production.



Kazanorgsintez investment outline for raw materials

Kazanorgsintez is currently focusing installing a new four-chamber Technip furnace on the E-200 unit which will have a capacity of 72 tons per hour for raw materials. In 2016 the company launched a similar two-chamber pyrolysis furnace and by the end of 2018 more furnaces will be added leading to an expansion in ethylene capacity to 654,000 tpa.

Ethane and liquefied hydrocarbon gases propane, and butane are used as raw materials for ethylene production at Kazanorgsintez. Ethane is the main raw material, but the volume of its supply is limited. Therefore, it was decided to reorientate part of the facilities for processing propane raw materials. Margins

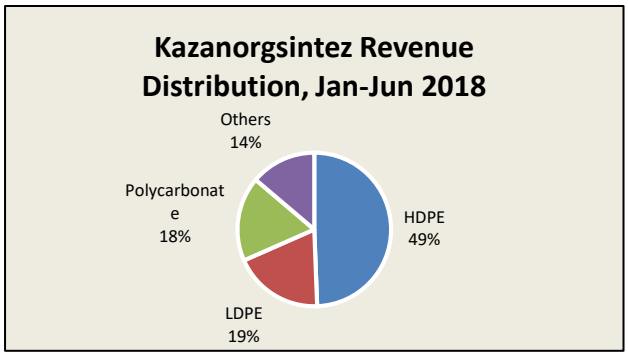
are not as good from propane, but supply is readily available and can compensate for the insufficient supply of ethane.

The programme for the development of existing production facilities for 2018-2020 for Kazanorgsintez is aimed at the development of two main production chains HDPE and polycarbonate. The total capacity of the production of low and high-pressure polyethylene could be increased to a level of more than 800,000 tpa and further up to 1 million tpa. In parallel, Kazanorgsintez plans to reconstruct reactor B at a low-pressure polyethylene plant to increase its capacity. In other areas, Kazanorgsintez is considering an increase in polycarbonate capacity to 100,000 tpa.

Aside ethylene and polyethylene, Kazanorgsintez is implementing a new cumene production technology using a zeolite catalyst developed by Badger Licensing. It will not only improve the efficiency of energy resources and raw materials, but also significantly reduce the negative impact on the environment.

Kazanorgsintez, Jan-Jun 2018

Kazanorgsintez achieved 6% higher revenues for polycarbonate sales in the first half of 2018, whilst LDPE fell 6.7% to 7.45 billion roubles. LDPE accounted for around 19% of sales. Polycarbonate sales totalled 6.98 billion roubles which was 30% more than in 2017, rising from 14.2% to 17.8%. HDPE sales also rose to 19.3 billion roubles to 17.7 billion roubles, rising in the share of total sales to 49.4% which was up 1.3%. Profits for Kazanorgsintez rose in the first half of 2018 under conditions of stable pricing. Prices for most feedstocks rose, including ethylene, propane-butane fractions, and ethylene oxide, whilst ethane costs actually fell.



Rosneft, Jan-Jun 2018

Rosneft increased the sales volumes of petrochemical products in the first half of 2018 by 15.4%, in which domestic sales increased by 12.5% over the same period in 2017. Rosneft sold 130,000 tons and 140,000 tons from its German plants for the second and first quarters of 2018, respectively.

Rosneft Petrochemical Production in Russia

Product	*Jan-Jun 18*	*Jan-Jun 17*
Ethylene	204.0	195.0
Propylene	163.0	137.1
Benzene	65.8	54.6
Styrene	19.6	18.8
Phenol	63.3	61.4
Acetone	39.2	38.1
LDPE	117.1	118.0
Polypropylene	65.0	63.2
Butanols	26.2	24.0

In total, the company sold 600,000 tons of petrochemical products in foreign markets, which is 20% higher than last year. In the domestic market, sales increased by 12.5% up to 800,000 tons. This has had a positive effect on revenue of 3 billion tons.

Rosneft processes oil at its refining assets Tuapse refinery, Komsomolsk, Achinsk refinery and Angarsk petrochemical plant, Kuibyshev, Novokuibyshevsk and Syzran refineries located in the Samara region, Saratov refinery and Ryazan refinery, refineries of Bashneft and others. The company also processes oil in Belarus and Germany.

As part of Bashneft means that Ufaorgsintez is part of Rosneft. The Ufa petrochemical producer increased turnover by 6.7% in the first half of 2018 to 15.3 billion roubles whilst the cost of production rose 29% to 13.9 billion roubles. The profit from sales of shares fell 10-fold to 250.6 million roubles, pre-tax profit fell 45% to 2.52 billion roubles and net profit of 2.02 billion roubles.

Russian petrochemical markets

Russian propylene production, Jan-Jul 2018

Russian propylene production totalled 1.324 million tons in the first seven months in 2018, against 1.293 million tons in the same period in 2017. The largest increase was noted by Gazprom neftekhim Salavat

which produced 96,100 tons against 64,500 tons, whilst overall SIBUR Tobolsk remained the largest producer followed by Nizhnekamskneftekhim.

Russian Propylene Production (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Angarsk Polymer Plant	64.7	59.4
Kazanorgsintez	23.5	23.4
Lukoil-NNOS	169.8	171.5
Stavrolen	76.6	76.3
Nizhnekamskneftekhim	190.8	181.6
Omsk Kaucuk	24.8	13.5
Polyom	115.4	113.0
Gazprom n Salavat	96.1	64.5
SIBUR Kstovo	92.4	108.0
SIBUR-Khimprom	36.7	44.8
Tomskneftekhim	83.6	88.3
SIBUR Tobolsk	243.8	246.0
Ufaorgsintez	105.4	103.6
Total	1323.6	1293.8

Tomskneftekhim resumed operations in August after a scheduled shutdown which started on 19 July. Maintenance at Tomsk included diagnostics and cleaning of all systems, as well as partial replacement of equipment. Tomskneftekhim is produces about 12,500 tons of propylene and 23,500 tons of ethylene per month. During the first half of 2018, Tomskneftekhim produced 142,300 tons of ethylene and 75,900 tons of propylene.

Russian propylene sales, Jan-Jul 2018

Russian petrochemical companies shipped 31,800 tons of propylene on the domestic market in July, which is 19% less than in June. Angarsk Polymer Plant reduced shipments six-fold due to maintenance to 1,200 tons, whilst Lukoil-NNOS reduced deliveries of propylene to Russian consumers by 10% to 17,800 tons. For the first seven months of 2018, 254,500 tons of propylene were sold to merchant consumers on the Russian domestic market, which is 14% more than in the same period of 2017.

Russian Propylene Domestic Sales (unit-kilo tons)		
Company	***Jan-Jul 18***	***Jan-Jul 17***
Angarsk Polymer Plant	44.4	38.7
Omsk Kaucuk	1.3	2.1
SIBUR-Kstovo	70.4	56.6
Akrilat	5.0	1.4
LUKoil-NNOS	130.3	118.6
Tomskneftekhim	0.2	1.8
Gazprom neftekhim Salavat	3.1	0.0
Stavrolen	0.2	0.0
Tobolsk-Polymer	0.0	2.0
Ufaorgsintez	0.3	0.8
Total	254.5	222.2

Regarding propane-propylene fractions, 16,000 tons were shipped to the Russian domestic market in July which is 7% more than in June. Slavneft-YANOS at Yaroslavl increased supply by 16% in July to 6,900 tons, rising to replace propylene monomer due to planned maintenance at Angarsk Polymer. In addition, the Ryazan oil refinery shipped 6,000 tons to the domestic market, 10% more than in June whilst exports from Ryazan dropped by 9% to 6,700 tons. For the first seven months of 2018 domestic companies sold 87,300 tons of propane-propylene fractions on the domestic market, which is 3% less than in the same period in 2017.

Russian Styrene Production (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Nizhnekamskneftekhim	178.2	180.3
Angarsk Polymer Plant	22.7	19.1
SIBUR-Khimprom	77.7	71.1
Gazprom n Salavat	121.6	95.8
Plastik, Uzlovaya	34.8	36.9
Total	434.9	403.2

At the Plant of Synthetic Alcohol at Orsk in the southern Urals, propane-propylene fractions were sourced from Slavneft-YANOS in July for the production of isopropanol. The processing of propane-propylene fractions at the Orsk plant had been carried out since February 2018.

Russian styrene, Jan-Jul 2018

Russian styrene production rose to 434,900 tons in the first seven months in 2018 against 403,200 tons in the same period in 2017. The major change was seen at Gazprom neftekhim Salavat where production rose from 95,800 tons to 121,600 tons in January to July 2018. In July, domestic companies delivered 6,600 tons of styrene to the domestic market, 28% less than in June. Gazprom neftekhim Salavat shipped 2,900 tons of monomer, 17% less than in June due to maintenance. In addition, the Angarsk Plant of Polymers carried out repair work for all of July. Russian companies sold 61,100 tons of monomer on the domestic market in the period January to July 2018, which is 9% more than in the same period of 2017.

Bulk Polymers

Russian polyethylene production Jan-Jul 2018

Russian production of HDPE totalled 571,000 tons in January-July 2018, down 0.4% against the same period in 2017. Kazanorgsintez increased production by 1% to 318,400 tons, whilst Stavrolen increased production by 3% to 172,900 tons. Gazprom neftekhim Salavat shut its capacities in July for a short-scheduled shutdown, with about 9,000 tons produced in July, compared with 10,900 tons in June. Total HDPE production at the Salavat plant amounted to 69,300 tons in January-July 2018, up 35% over 2017. This year Nizhnekamskneftekhim produced HDPE only in April and May, concentrating mostly on LLDPE production. The company produced just 17,700 tons in the first seven months against 37,300 tons in the same period in 2017.

Russian HDPE Production (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Kazanorgsintez	318.4	316.3
Stavrolen	172.9	168.2
Nizhnekamskneftekhim	17.7	37.1
Gazprom n Salavat	69.3	51.5
Total	578.3	573.1

Russian Polypropylene Production (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Ufaorgsintez	77.3	62.9
Stavrolen	64.8	59.7
Moscow NPZ	77.9	42.9
Nizhnekamskneftekhim	123.3	109.6
Polyom	128.6	106.4
Tomskneftekhim	83.6	70.9
Tobolsk-Polymer	273.6	260.8
Total	829.1	713.2

Kazanorgsintez plans to stop part of its LDPE production capacities (from 26 September, almost for a month of maintenance. Ufaorgsintez stopped its capacity to produce LDPE) and polypropylene in September for repairs. Starting from 1 September, the company stopped production for preventive maintenance. The downtime of production will be quite long, and each stage will take about 30 days. The total capacity for the production of LDPE and PP at Ufaorgsintez is 90,000 tpa and 120,000 tpa respectively.

Russian polypropylene production, Jan-Jul 2018

Russian polypropylene rose 1% in the first seven months to 829,000 tons. SIBUR-Tobolsk increased production by 10% to 273,800 tons, Polyom by 3% to 128,600 tons and Nizhnekamskneftekhim by 3% to 123,600 tons. Tomskneftekhim reduced production to 83,600 tons, whilst Ufaorgsintez increased to 77.300 tons. Other producers included Neftekhimya at Moscow which increased 45% to 77,900 tons and Stavrolen increased by 9% to 64,300 tons. Russian polypropylene production is set to increase sharply in 2019-2020 after the start-up of the ZapSibNeftekhim complex at Tobolsk.

Polypropylene imports into Russia increased 24% in the first seven months in 2018 to 114,900 tons. Homopolymers increased from 33,300 tons to 41,600 tons whilst block copolymers rose from 23,600 tons to 28,200 tons and random copolymers from 16,300 tons to 21,200 tons. Other propylene grades rose by 24.5% to 23,900 tons.

Russian PVC Production (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Bashkir Soda	151.0	140.7
Kaustik	54.5	53.6
RusVinyl	183.6	180.5
Sayanskkhimplast	162.8	156
Total	551.9	530.8

Russian PVC market, Jan-Jul 2018

In the first seven months in 2018, Russian PVC production rose 4% to 551,800 tons. RusVinyl produced 183,600 tons in the first seven months, which is 2% more whilst Sayanskkhimplast produced 162,800 tons versus 156,000 tons. Other producers included Bashkir Soda, rising 7% to 151,000 tons and Kaustik at Volgograd which shipped 54,500 tons versus 53,600 tons.

PVC imports dropped 68% in the first seven months to 12,700 tons. At the same time Russian producers were forced to increase exports by almost a third from 53,400 tons to 70,200 tons.

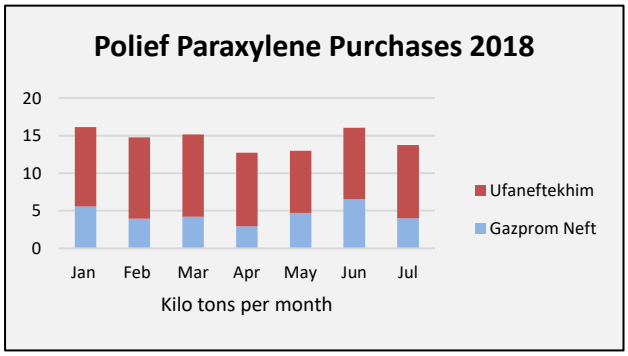
PX-PTA-PET

Polief PTA expansion

SIBUR began installation of large-scale equipment in August for reconstruction of the PTA facilities at Polief at the Blagoveshchensk industrial site in Bashkortostan. The rate of progress of the project in August had

achieved 36% of the complete schedule. The eventual target of the modernisation programme is to expand the production capacity to 350,000 tpa from around 270,000 tpa at present. The project is planned to be completed in 2019.

Construction and installation work is being carried out without requiring a major shutdown. The project includes a new unit for catalytic oxidation of waste gases, power supply facilities, and an additional tank of 3,200 cubic metres for storing paraxylene. SIBUR is seeking to secure additional supplies of paraxylene to meet the demands of the PTA expansion.



In August 2016, SIBUR and Bashneft signed a long-term contract for the delivery of paraxylene, which is used in the production of PTA by Polief. The agreement will last until 2036 inclusive. In accordance with the agreements reached, Bashneft will deliver at least 120,000 tpa of paraxylene to Polief. The cost of raw materials for the production of PTA is determined by factoring international exchange quotations on the principles of formula pricing. Bashneft supplies around 60-70% of paraxylene supplies to Polief, with the remainder supplied by Gazprom Neft.

Russian PTA Imports (unit-kilo tons)		
Country	***Jan-Jun 18***	***Jan-Jun 17***
Belgium	2.1	22.0
India	4.8	20.0
China	56.1	52.0
South Korea	35.2	34.3
Poland	10.0	3.7
Thailand	9.5	11.5
Turkey	0.0	2.0
Total	117.6	145.6

Polief is the only producer of PTA and a major supplier of PET in Russia with capacities of 272,000 and 219 ,000 tpa respectively. SIBUR will receive regional tax benefits from investing in Polief, as enterprises with a minimum investment of 750 million roubles are offered to exempt from property tax and reduce the profit rate to 4.5% by 4.5%. SIBUR has indicated the volume of capital investments in the amount of 6.4 billion roubles.

Russian PTA imports, Jan-Jun 2018

PTA imports into Russia declined in the first six months in 2018 to 117,600 tons against 145,600 tons in the same period last year. China increased shipments to 56,100 tons against 52,000 tons in January to June 2017 whilst India reduced deliveries from 20,000 tons to 4,800 tons. Thailand supplied 9,500 tons of PTA to Russia in the first six months in 2018 versus 11,500 tons in the same period in 2017.

Russian Benzene Production (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Rosneft	89.0	66.4
Gazprom Neft	63.0	43.2
Lukoil	70.8	79.1
Magnitogorsk MK	32.9	33.6
Nizhnekamskneftekhim	136.1	134.2
Novolipetsk MK	4.6	9.3
Gazprom n Salavat	121.4	103.7
Kirishinefteorgsintez	38.7	43.6
Slavneft	42.6	42.0
Severstal	21.2	19.4
Bashneft	55.4	40.7
Ural Steel	5.1	1.9
Uralorgsintez	52.7	52.1
Zapsib	44.3	32.5
SIBUR	45.4	48.2
Total	823.1	749.8

Russian PET production, Jan-Jul 2018

Production of PET in Russia in January-July totalled 334,740 tons, against 331,390 tons in the same period in 2017. Including imports, Russian PET consumption rose 2% in the first seven months in 2018 to 387,290 tons.

Aromatics

Russian benzene production-sales, Jan-Jul 2018

Russian benzene production totalled 823,072 tons in the first seven months in 2018 against 749,833 tons in the same period in 2018. Production increases have been noted this year at Ryazan, Salavat and Omsk. A number of outages have been either undertaken or started in the third quarter affecting product shipments.

In September Gazprom neftekhim Salavat started maintenance which is scheduled to finish in early October. The Salavat plant produced 121,400 tons of benzene in the first half of 2018.

Gazprom Neft started maintenance on 10 September which is to last until 5 October, meaning that consumers such as Kuibyshevazot and Azot at Kemerovo are required to seek alternative suppliers for this period. Gazprom Neft produced 62,988 tons of benzene in the first seven months in 2018 most of which is sold on the merchant domestic market.

Angarsk Polymer Plant resumed the supply of benzene to the domestic market after the completion of the repair work. On 29 June, production at the Rosneft plant was stopped for 40 days for scheduled repairs. The first lots of aromatic raw materials were shipped on 12 August to Azot at Kemerovo. At the Angarsk plant in the first half of 2018, 47,600 tons of benzene was produced for synthesis, which is 8% more than in the same period of 2017.

Russian Caprolactam Production (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Kuibyshevazot	127.5	104.5
Shchekinoazot	32.3	27.0
SDS Azot	76.3	60.4
Total	236.1	191.9

Kazanorgsintez purchased 6,362 tons of benzene by tender in August for delivery in September 2018. Ufaorgsintez has also sought to buy benzene from the merchant market in recent months. This has been due to the extra demand after competition of the cumene upgrade and expansion to 170 ,000 tpa.

The three Russian caprolactam producers remain the largest merchant consumers of benzene, followed by styrene and phenol producers. Purchases made by domestic producers totalled 508,000 tons in the first seven months which was 19% up on the same period in 2017 due largely to higher caprolactam production.

Russian orthoxylene & toluene

Toluene sales on the Russian domestic market amounted to 96,800 tons in the first seven months versus 91,800 tons in the same period in 2017. Toluene differs from other aromatic sales in Russia in that there is no large consumer and that product shipments are distributed in relatively small quantities. The largest consumer in 2018 has been the TAIF group in Tatarstan which bought 4,494 tons which amounted to under 5% of total sales on the domestic market.

Russian Toluene Domestic Sales (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Novopiletsk MK	0.0	0.1
Slavneft-YANOS	12.2	7.0
Severstal	2.6	2.5
Lukoil-Perm	14.9	5.1
Gazprom Neft	45.0	46.8
Zapsib	1.1	11.2
Kinef, Kirishi	20.1	15.0
Gazprom Neftekhim Salavat	0.0	1.7
Others	0.9	2.6
Total	96.8	91.8

Russian companies supplied 10,450 tons of orthoxylene to the domestic market in July, 14% less than in June 2018. The Omsk refinery shipped 4,900 tons, Kirishinefteorgsintez 2,970 tons (28%) and Bashneft 2,580 tons (25%).

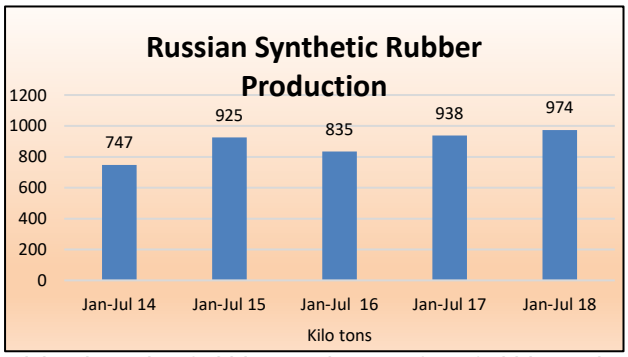
Kamteks-Khimprom reduced purchases of orthoxylene in July by 18% to 5,590 tons, followed by Gazprom neftekhim Salavat which reduced purchases by 31% to 540 tons (5%). Dmitrievsky Chemical Plant reduced volumes of orthoxylene by 39% to 190 tons. In July, Russian paint and varnish manufacturers reduced purchases of orthoxylene relative to June by 11%, to 2,820 tons. Producers of fuel, agrochemistry, pharmaceutical and other products purchased 1,310 tons. In total, from January to July 2018, domestic sales of orthoxylene on the Russian market dropped 6% to 83,780 tons.

Synthetic rubber

Russian rubber production, Jan-Jul 2018

Russian synthetic rubber production totalled 974,000 tons in the first seven months in 2018 against 938,000 tons in the same period in 2017. Domestic demand for synthetic rubber has benefited this year from increased tyre production, in all categories of cars, lorries and tractors. Of the tyre manufacturers Omskshina has agreed contracts with Kordiant Vostok for raw material supplies such as SBR, butadiene rubber, etc, which Kordiant sources through SIBUR.

SIBUR undertook maintenance at Voronezhsintezkaucuk from 26 July to 11 August. Maintenance takes place every two years. Synthetic rubber production at Voronezh totalled 186,000 tons in 2017, 14% higher than in 2016, and thermoelastomers rose 6% to 77,800 tons.



Tatarstan's justice department continues to examine the dispute over synthetic rubber prices charged by Nizhnekamskneftekhim to local tyre manufacturers. Prices were to be increased for tyre factories of Tatneft by 10-27% over the next year. 2017. For the first six months this year, Tatneft's enterprises produced 6.9 million tyres, which is 19% higher than in 2017. In the second quarter, the increase was 6.1% raising totals to 3.5 million tyres.

The agreement on the supply of rubber between Nizhnekamskneftekhim and Tatneft-Neftekhimsnab was signed in November 2012. This year Nizhnekamskneftekhim suggested that the tyre dealers sign a new contract, tying the price of supply to stock quotes for natural rubber. As far as Tatneft-Neftekhimsnab is concerned there are no objective reasons for increasing the prices for synthetic rubber.

Omsk Kaucuk, Jan-Jun 2018

Omsk Kaucuk (included in the GC Titan) completed the first half of the year with a net profit of 116 million roubles versus a loss of 143 million roubles in the same period in 2017. According to the results of the first six months of the year Omsk Kaucuk received revenue of 3 billion roubles, which is 9.4% higher than the level of the previous year. The cost of sales of the enterprise's products for the period increased to 2.5 billion roubles. As a result, gross profit amounted to 511 million roubles, and operating profit 106 million roubles against a loss of 140 million roubles in the same period in 2017. Profit before tax reached 158 million roubles.

Russian Synthetic rubber Exports (unit-kilo tons)

Category	*Jan-Jun 18*	*Jan-Jun 17*
Polybutadiene	123.4	119.1
BR	73.9	62.5
HBR	66.7	65.6
NBR	15.7	12.2
Isoprene	148.5	153.8
Others	81.8	90.0
Total	509.9	503.1

Russian rubber exports, Jan-Jun 2018

Russian exports of synthetic rubber increased to 509,900 tons in the first six months in 2018 against 503,100 tons in the same period in 2017. Revenues from synthetic rubber exports dropped from $945 million to $846 million reflecting a fall per ton from $1839 to $1670. The highest value product category exported from Russia is halogenated butyl rubber (HBR).

Volatility in raw materials prices for tyres and rubber goods has moderated since last year, but market is still prone to wild swings. Butadiene is up this year in all regions affecting margins, and recent crude hikes seem only likely to add further pressure to prices. The butadiene markets have been driven largely by trends in the ABS (acrylonitrile butadiene styrene) markets in Asia that have pushed prices to the point where rubber producers are not able to maintain positive margins.

In terms of revenues for Russian synthetic rubber exports in the first six months in 2018, isoprene rubber provided the largest source of sales totalling $228 million. This was followed by polybutadiene, butyl rubber and halogenated butyl rubber.

Methanol & Ammonia

Russian methanol production Jan-Jul 2018

Russia produced 2.464 million tons of methanol in January to July 2018 against 2.282 million tons in the same period in 2017. Metafrax undertook a maintenance shutdown in August, lasting from 4-20, although this did not have a big impact on product supply to domestic consumers. Metafrax increased production to 715,500 tons from 654,000 tons whilst Sibmetakhim increased production from 474,300 tons to 542,300 tons. Azot at Nevinnomyssk was the only Russian producer to record a decline in the first seven months.

Russian Methanol Production (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Shchekinoazot	272.1	288.3
Sibmetakhim	542.3	474.3
Metafrax	715.5	654.0
Akron	62.4	59.1
Azot, Novomoskovsk	168.7	135.8
Angarsk Petrochemical	2.2	2.0
Azot, Nevinnomyssk	61.7	69.1
Tomet	507.1	476.9
Ammoni	131.7	122.5
Totals	2463.6	2282.0

Russian methanol sales, Jan-Jul 2018

Domestic sales of methanol in the Russian market amounted to 899,700 tons in the first seven months in 2018 against 868,700 tons in the same period in 2017. Tomet at Togliatti was the largest supplier providing 308,600 tons against 282,900 tons in the same period in 2017. Metafrax reduced shipments to 215,400 tons from 159,400 tons whilst Ammoni increased deliveries from 66,300 tons to 97,100 tons.

In terms of consumers Nizhnekamskneftekhim reduced purchases from 146,000 tons in January to July 2017 to 129,000 tons in 2018 but still remained the largest domestic purchaser.

Russian Methanol Domestic Sales (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Azot Nevinnomyssk	8.6	17.2
Azot Novomoskovsk	82.9	47.4
Metafrax	159.4	215.4
Sibmetakhim	211.5	206.3
Tomet	308.6	282.9
Shchekinoazot	29.8	30.1
Ammoni (Mendeleevsk)	97.1	66.3
Others	1.9	3.0
Total	899.7	868.7

Munitions company Ya.M. Sverdlov at Dzerzhinsk resumed purchases of methanol in August, after a break since April. Deliveries were received from Tomet. The Sverdlov plant incurred a serious accident on 31 August in an explosion which caused three deaths.

For the first time in Russia, the methanol content indicator will be regulated in cooling liquids. The relevant standards came into force in July 2018, which fixes the standard for the content of methanol in cooling liquids, which is 0.05%. The main component of cooling liquids is ethylene glycol, which is more expensive than methanol by about five times. Due to the difference in price, some manufacturers began to add methanol to antifreeze. Until recently, the use of methanol in the production of cooling liquids was not regulated.

Metafrax, Jan-Jun 2018

Metafrax increased revenues by 2.7 billion roubles to 12.3 billion roubles in the first half of 2018. Exports accounted for 49.1% of sales versus 42% in the first half of 2017. Revenues rose due to higher prices. Profits from sales rose to 5.6 billion roubles from 3.79 billion roubles, whilst net profits rose by 37.3% to 4.95 billion roubles. Utilisation rates were close to full capacity in the first half of 2018 due to strong demand.

Metafrax-Production (unit-kilo tons)		
Product	***Jan-Jun 18***	***Jan-Jun 17***
Methanol	611.5	560.0
Formaldehyde	191.5	181.0
Urea-formaldehyde concentrate	95.8	89.0
Pentaerythritol	11.4	12.7

Methanol production rose 52,000 tons in the first half to 611,500 tons, formaldehyde by 5.7% in 191,500 tons, urea-formaldehyde by 6,600 tons to 95,800 tons. Pentaerythritol rose 3% to 11,400 tons, utropin by 2,400 tons to 18,900 tons and polyamide dropped by 1.7% to 403 tons.

Metafrax-second melamine project to follow AKM project

Metafrax and Casale signed a contract for the construction of a second melamine plant with a capacity of 40,000 tpa. The cost of the project is estimated at €200 million. The facility will be integrated into the complex Ammonia-Urea-Melamine (AKM) complex under construction in Gubakha of Perm Krai, where the first melamine plant will have a capacity of 40,000 tpa. Metafrax plans to complete the construction of the complex in 2021 which will include capacities of up to 575,000 tpa of urea, 308,000 tpa of ammonia and 40,000 tpa of melamine.

Ammonia and urea are to be produced at Gubakha using a technology that includes the use of blowdown gases from methanol and carbon dioxide lines from reforming furnaces. This will reduce waste production and improve the energy efficiency of the future complex. The payback period of AKM is indicated at ten

years. The general contractor of the project Uralenergostroy completed the construction of the trunk of the urea prilling tower with the height of 98 metres, large-capacity equipment is being supplied.

Togliattiazot, Jan-Jun 2018

Togliattiazot increased its net profit by 5% in the first half of the year. The company's revenue increased by 12% to 25.2 billion roubles. The cost of sales increased by 12% to 11.7 billion roubles. The increase over the previous year was due to the higher export sales, including ammonia by 22% and urea by 20%.

Net profit of the company amounted to 3.3 billion roubles against 3.1 billion roubles. Togliattiazot produced 1.39 million tons of ammonia over the first half of the year, 8.6% more than the same period of 2017. The output of urea amounted to 402,600 tons against 401,400 tons. In 2017 the enterprise produced 2.17 million tons of ammonia, 14% less than in 2016. The volume of urea production increased by 25% to 624,100 tons. Togliattiazot's production facilities allow the production of more than 3 million tpa of ammonia and about 960,000 tpa of urea.

Marubeni-AEON agreement or methanol project at Volgograd

On the site of the idle Khimprom chemical plant at Volgograd an agreement has been signed by Marubeni to construct a 1 million tpa methanol plant. The partners of the project will include the Russian Direct Investment Fund (RFPI), Marubeni Corporation and the infrastructure corporation AEON. The objective is to use the methanol complex as the base for the creation of the chemical cluster, although it is unclear what that means at this stage.

The engineering part of the project, as well as the main technological solutions, will be prepared by Mitsubishi Heavy Industries Engineering. The construction of the methanol is intended to take place for the period 2020-2022, depending on natural gas infrastructure investment.

Russian Butanol Production (unit-kilo tons)

N-Butanol		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Angarsk Petrochemical	17.0	17.8
Azot	8.3	8.8
Gazprom n Salavat	32.8	32.7
SIBUR-Khimprom	24.3	24.7
Total	82.3	84.0
Isobutanol		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Angarsk Petrochemical	9.2	9.4
Gazprom n Salavat	21.6	14.6
SIBUR-Khimprom	29.0	25.7
Total	59.8	49.8

For the construction of the Ammonia-Urea-Melamine complex at Gubakha nearly all equipment has been delivered from Italy supplied by LUIGI RESTA. Equipment was delivered to the port Rostov on the Don, followed by shipment to the Transkama terminal at Nizhnekamsk before further transhipment to Gubakha. Construction of the equipment is planned to start in September. Further deliveries are expected before the end of the year.

Metafrax has now decided to become one of the largest producers of melamine in Europe by building a second plant. The Russian market is worth around 50,000 tpa at present and offers good potential for growth. The main consumer for many years is the woodworking industry, especially specializing in the production of wood-based panels and their coatings.

Shchekinoazot opens new methanol and ammonia complex

The new methanol and ammonia complex at Shchekinoazot in the Tula Oblast was opened at the start of September. The new facilities include a capacity of 450,000 tpa and ammonia capacity of 135,000 tpa. The launch of a new methanol and ammonia production complex is a new innovation for the company insofar methanol and ammonia have not been produced previously on the same complex in Russia. The new plant facilities have been designed to minimize consumption of raw materials and energy resources, and to reduce the impact on the environment. Shchekinoazot is also constructing a new methanol plant with a capacity of 500,000 tpa, which should be introduced in 2021. This will increase total methanol capacity for the company to 1.4 million tpa.

Skovorodino methanol project-Amur Oblast

Technolizing has taken steps towards the construction of the new methanol project at Skovorodino in the Amur Oblast which will involve a capacity of 1 million tpa. Other investments will include railway infrastructure. The active phase of construction should begin in 2019. The enterprise plans to export its products to the Asia-Pacific countries.

Organic chemicals

Russian butanol production Jan-Jul 2017

Russian butanol production amounted to 137,256 tons in January to July 2018 against 133,702 tons in the same period in 2017. The share of n-butanol in gross production in comprised 58%, and isobutanol 42%. This year producers have increased the production of isobutanol and slightly reduced the production of normal butanol. Overall Gazprom neftekhim Salavat increased butanol production to 54,373 tons from 47,245 tons, whilst SIBUR-Khimprom increased to 53,300 tons from 50,400 tons.

Russian butanol sales, Jan-Jul 2018

Butanol sales on the merchant domestic market amounted to 33,800 tons in the first seven months against 32,800 tons in the same period in 2017. The largest consumers remain Akrilat Dzerzhinsk, Dmitrievsky Chemical Plant and Volzhskiy Orgsintez.

Regarding internal or captive processing, Gazprom neftekhim Salavat intends to launch production of superabsorbent polymers (SAP) based on acrylic acid. As part of the project, Gazprom neftekhim Salavat signed a memorandum of intent with the Chinese company Yixing Danson Science & Technology in August.

Russian Butanol Domestic Sales (unit-kilo tons)		
Producer	***Jan-Jul 18***	***Jan-Jul 17***
Gazprom n Salavat	4.9	4.1
SIBUR-Khimprom	15.7	21.0
Angarsk Polymer Plant	12.8	6.4
Azot Nevinnomyssk	0.5	1.4
Others	0.0	0.0
Totals	33.8	32.8

Acrylic acid on the Acryl Salavat site is obtained during the gas phase oxidation of propylene on a solid catalyst. Butyl acrylate is produced during the esterification reaction of acrylic acid and butanol in the liquid phase using a catalyst. The new plant will give impetus to the creation of new production facilities for the production of personal hygiene products, baby diapers and many other household and construction products.

Russian butanol exports & impact on domestic market, Jan-Jun 2018

The rapid growth of quotations of n-butanol in Asia along with the devaluation of the rouble has helped increase in the volume of exports of Russian butanols in the first half of 2018. N-butanol exports rose to 18,100 tons in the first half of 2018 against 9,000 tons in the same period in 2017, whilst isobutanol exports rose from 9,800 tons to 19,400 tons.

Russian Organic Chemical Exports (unit-kilo tons)		
Product	***Jan-Jun 18***	***Jan-Jun 17***
N-Butanol	18.1	9.0
Iso-butanol	19.4	9.8
2-EH	12.7	15.2
Pentaerythritol	6.2	5.6
Phenol	16.9	8.7
Ethylene Oxide	6.1	8.4
Formaldehyde	9.9	11.0
Acetone	15.6	20.7
Acetic Acid	18.2	14.8
Butyl Acetate	8.9	12.5
Acrylic Acid	13.2	6.2

At the same time rises in export activity have caused a shortage in the domestic merchant market. This increase in supplies was due, on the one hand, to the growth of quotations of n-butanol both in Asia and Europe, and on the other hand the devaluation of the rouble against the dollar and the euro. Since the beginning of 2018 the increase in the cost of normal butanol in China was almost 27%. In the European market, prices for n-butanol over this period increased by 4% and the export of butanols from Russia has more than doubled.

The highest volumes of Russian butanols from January to June 2018 were exported to China, 12,300 tons (or 30% of total supplies from Russia) which was a rise of 2.8 times over 2017. Another 5,290 tons of butanols were exported to India and 4,910 tons to Turkey. Other destinations included Poland with 4,450 tons, and the Netherlands 4,250 tons.

The largest exporters in 2018 included SIBUR-Khimprom (38% of the total Russian exports, or 15,610 tons), Gazprom neftekhim Salavat (37%, or 15,240 tons) and the Angarsk Petrochemical Company (19%, or 7,930 tons). Angarsk Petrochemical increased its supply to foreign countries by more than 7.1 times. The rapid growth in Russian butanol exports this year has resulted in a fall in domestic shipments by 26%. This has led to a significant deficit of n-butanol and in the first half of 2018, the cost of normal butanol from trading companies of the Volga Federal District of Russia increased by 5% to 59,450-60,000 roubles per ton, including VAT. Isobutanol has risen in price by 8%, to 57,000-58,000 roubles per ton including VAT.

SIBUR, DOTP project

Regarding the dioctyl terephthalate (DOTP) project at SIBUR-Khimprom at Perm, progress of construction and installation works at the facility was rated at about 65% by the end of August. Two reactors have already installed and the completion of construction and the beginning of commissioning at the facility are scheduled for December 2018. Start-up of new production unit is scheduled for the first half of 2019. The

implementation of the project is intended to replace the import of similar products, whilst offering possibilities to supply plasticizers to export markets.

Impact of DOTP project on Russian market for 2-ethylhexanol

Commissioning SIBUR-Khimprom's dioctyl terephthalate (DOTP) plant could have an impact on the market for 2-ethylhexanol, used as raw material for the production. At the same time, the largest producer of DOP in Russia Kamteks-Khimprom uses 2-ethylhexanol from SIBUR and its own phthalic anhydride. The start-up of the DOTP plant will affect the ability of Kamteks-Khimprom to secure supplies of 2-ethylhexanol thus affecting DOP production and knock-on effects on other product chains and derivatives. Kamteks-Khimprom possesses capacities for DOP (26,000 tpa), fumaric acid and phthalic anhydride (90,000 tpa).

The project is being undertaken in partnership with Perm Krai within the framework of a special investment contract which has been signed for eight years. The production capacity of the new unit will be 100,000 tpa based on licensed technology from the Korean company Aekyung. Construction and installation and commissioning work is being carried out by Russian company NIPIGAS.

The deficit of the Russian market of basic plasticizers is estimated about 60,000 tpa. As a raw material for the production of DOTP, 2-ethylhexanol and PTA are used. SIBUR produces about 80,000 tpa of 2-ethylhexanol at Perm of which it could consume around 67,000 tpa in providing raw materials for DOTP production. It also produces PTA at Polief in Bashkortostan from it can procure supply. Work is underway at the Perm site on assembling of PTA storage silos under the guidance of Korean supplier DYK Young Engineering. In the commodity park of storage and shipment of DOTP, three tanks of 1000 cubic metres are to be mounted.

Other Russian organic chemicals, Jan-Jul 2018

Russian exports of 2-ethylhexanol (2-EH) dropped in the first six months to 12,700 tons against 15,200 tons in the same period in 1017, whilst both n-butanol and isobutanol exports increased. Acetone exports dropped from 20,700 tons in January to June 2017 to 15,600 tons in 2018, partly due to the lower production of phenol. Pentaerythritol exports amounted to 6,200 tons in the first six months, representing around 50% of production at the sole Russian producer Metafrax.

Phthalic anhydride production amounted to 61,000 tons in the first seven months in 2018 against 65,000 tons in the same period in 2017. Kamteks-Khimprom reduced the production of phthalic anhydride by 10% to 54,200 tons, whilst Gazprom neftekhim Salavat increased production by 11% to 6,400 tons.

Other products

Russian TDI Imports

Ktons						
	Jan	Feb	Mar	Apr	May	Jun
2018	4.2	3.6	4.4	4.3	5.2	2.8
2017	3.2	3.3	3.1	2.8	2.8	3.8
2016	2.6	3.2	2.8	2.9	3.2	3.3
$ million						
	Jan	Feb	Mar	Apr	May	Jun
2018	16.3	14.4	17.7	17.7	20.7	10.5
2017	8.6	9.2	8.7	8.2	8.6	12.2
2016	5.4	4.6	5.1	5.8	6.2	7.8
Price per ton $						
	Jan	Feb	Mar	Apr	May	Jun
2018	3899.5	4000.0	4013.6	4106.7	3980.8	3750.0
2017	2695.9	2822.1	2824.7	2928.6	3093.5	3227.5
2016	2117.6	1428.6	1847.8	1993.1	1955.8	2385.3

Nizhnekamskneftekhim catalysts & new products

Nizhnekamskneftekhim expects to launch of the production of catalysts for the production of isobutylene in the near future. The installation of equipment has been completed, and at the end of September, it is planned to start commissioning works. Inclusion of new production facilities will increase the output of the catalyst necessary for the production of isobutylene.

In parallel, the company is constructing the production of methyl-oxyethylated polyethylene glycol (MPEG) and solid polyethylene glycol (TPEG). MPEG is expected to be produced by the end of the year, and TPEG in early 2019. New products will be produced from MEG and ethylene oxide. Liquid products will be shipped to consumers in 200-litre barrels, and solid products in 25-kilogram bags and 1000-kilogram big bags. TPEG is used for the production of various detergents and cleaning agents as a stabilizer of the viscosity regulator,

antistatic agent, softener. MPEG are used for the same purposes, and also necessary in the production of plasticizers of concrete mixtures.

Kamsky Polymer Products Plant, Tobolsk

An investment project is being implemented to build a polymer film production at Tobolsk under which the capacity of the future unit will be 10,000 tpa. The initiator of the project is OOO Kamsky Polymer Products Plant, and the film will be supplied for the needs of SIBUR for packaging of finished products. The volume of investments in the creation of production will amount to 1.1 billion roubles.

Project plans for Bashkir Soda

A project to build a plant for 1 million tpa of soda ash is under review by Bashkir Soda at Sterlitamak, to cover the period 2019-2020. The company's board of directors has been forced to instruct a feasibility study due declining limestone reserves from traditional sources.

Regarding PVC, Bashkir Soda plans to increase the capacity of the complex at Sterlitamak to 265,000 tpa by 2020. The increase in the capacity of PVC production is planned due to the introduction of measures for the technical re-equipment of the process plants for the production of chlorine, dichloroethane, VCM and PVC.

In parallel for the years 2018-2021, the company intends to increase capacities for the production of solid caustic soda to 80,000 tpa. The measures provide for an increase in the production of solid scaled caustic by 30,000 tpa. Approximately 14 billion roubles in investments will be required the construction of a membrane electrolysis unit, followed by the decommissioning of caustic and chlorine industries with diaphragm and mercury methods. The transfer to membrane electrolysis is expected to be undertaken in the period from 2019 to 2023.

Aerosolex-new dimethyl ether plant

Russian company Aerosolex has opened a new high-purity dimethyl ether plant with a capacity of 10,000 tpa. The product will be manufactured under its own trademark Propelan®. High purity dimethyl ether is used as a propellant to produce cosmetic, household, and construction aerosols; as a foaming agent to manufacture construction and packaging materials; as a coolant along with other uses.

Aerosolex is aiming to divide sales between export and domestic customers. Consumers could include manufacturers of various aerosol products, polyurethane mounting foams, and XPS heat insulation, as well as companies from other industries where high-quality propellant or a foaming agent with high solvent ability is required.

The first production unit for high purity dimethyl ether based in Russia will increase the reliability of supply and significantly reduce product delivery time to consumers, which should give an additional impetus to the development of consuming industries. Aerosolex 's own production of high purity dimethyl ether Propelan® is located on the grounds of the industrial site at Dzerzhinsk. In addition to dimethyl ether, the company provides other raw materials for the production of aerosols, food and cosmetic products, household chemicals, and construction materials.

Russian caustic soda trade 2018

Export of caustic soda from Russia decreased by 3% in the first half of 2018, whilst import supplies increased by 34% mainly for solid products. For the first six months of the year, domestic producers sent 109,700 tons of caustic for export. In 2017 Russian enterprises shipped 206,700 tpa of caustic soda to foreign markets versus 172,900 tons in 2016. The imports of caustic in the Russian Federation decreased from 23,300 tons in 2016 to 14,800 tons in 2017.

Russian Caustic Soda Trade (unit-kilo tons)		
Aqueous	***Jan-Jun 18***	***Jan-Jun 17***
Exports	107.0	95.1
Imports	0.725	2.4
Solid	***Jan-Jun 18***	***Jan-Jun 17***
Exports	37	41.5
Imports	12.8	6.4

Russian imports of unsaturated polyester resins 2018

Imports of unsaturated polyester resins (UPRs) to Russia increased by 18% in 2017 and amounted to 20,300 tons, although this was lower than five years ago in 2013 when volumes totalled 27,200 tons. The total value of resin imports last year was €33 million, of which around 23% of import deliveries came from Finland, 18% from Serbia, 16% Poland, and 12% France.

Russian UPR Imports (unit-kilo tons)	
2013	27.2
2014	24.1
2015	16.6
2016	18.2
2017	20.3

Russian producers produced 32,450 tons of polyester resins in 2017, increasing production by more than 6%. The share of Russian producers in the structure of domestic consumption from 46% in 2010 increased to 76% in 2016 and remains at this level. The largest share of the Russian market in 29% is occupied by Serbian owned Dugalak, followed by Raduga-Synthesis at 21%, Ashland 9%, and Yaroslavl Polyesters 7%.

Dugalak was established in 1999 with 100% foreign capital, is engaged in the production of polyester resins and gelcoats. Production is carried out on two sites, at Yaroslavl and Sabac (Serbia). In 2016, the Russian branch of Dugulak produced 11,000 tons of products.

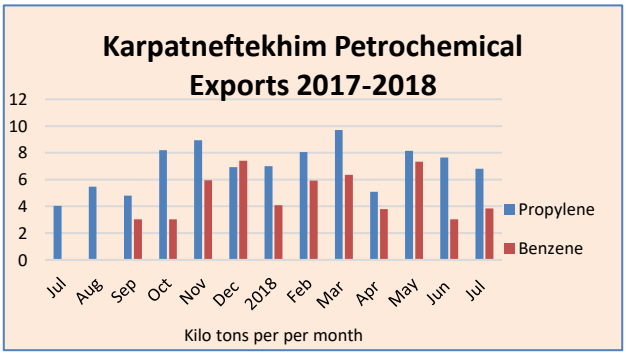
Unsaturated polyester resins (UPRs) are used in construction, automotive, boat-building and a number of other industries. The total capacity of the world market of polyester resins in 2017 was estimated at 5.6 million tons. The size of the Russian market in 2017 was estimated at 43,400 tpa which could grow to around 70,000 tpa by 2023 depending on economic conditions. The main factor restricting domestic production for polyester resins is the shortage of raw materials such as isophthalic acid, maleic anhydride and epichlorohydrin.

Russia-Ukraine disputed territory

Crimean Titan shutdown and future direction

The plant for the production of titanium dioxide Crimean Titan (or Titanium Investments) at Armyansk in the north of Crimea may not be shut down completely after the recent ecological disaster but will need to be modernised before it can restart production. After leaks of sulphuric acid and sulphur dioxide all of the production furnaces have been stopped by mid-September. From the trade perspective, Russia remains a net importer of titanium dioxide.

Ukraine



Ukrainian PVC imports, Jan-Jul 2018

Imports of suspended PVC to Ukraine decreased by 28% in the first seven months in 2018 compared to 2017 and amounted to 43,700 tons. The main reason is the growth of own production volumes by Karpatneftekhim. For the first seven months of the year, North American resin imports from the United States amounted to 28,600 tons against 25,100 tons a year earlier. Imports from European suppliers dropped from 24,100 tons in the first seven months in 2017 to 13,800 tons in 2018.

Ukrainian methanol & derivative trade, Jan-Jul 2018

Ukraine imported 22,678 tons of methanol in the first seven months in 2018 against 17,100 tons in the same period in 2017. Ukraine abolished anti-dumping duties on urea-formaldehyde resins in August against Russian producers in Russia after deciding that the duties were unfair. It may seem odd considering the vitriolic relationship between Russia and Ukraine, that the Ukrainian government would come down on the side of the Russian producers.

The duty rate was set at 39.94% in 2017 after a filing complaint of KarpatSmol at Kalush and other Ukrainian producers. Metafrax, one of Russia's largest suppliers of urea-formaldehyde resins, led the counteraction against fees for imports of Russian resins.

Other Ukrainian chemical industry news

Efforts are underway to restart ammonia plants at Odessa and Gorlovka, after the restart of the Severodonetsk plant restarted in August. Stirol stopped production in 2014 following the Russian intervention into the Donbass region and includes capacities for 1.470 million tpa of ammonia and 940,000 tpa of urea. In Crimea, the titanium dioxide plant managed by Crimean Titan stopped production in early September following problems in water supply which has culminated in a major environmental disaster resulting in mass evacuations.

Dniprozot, which produced chlorine for water purification in the cities of Ukraine, can cause problems for the domestic utility companies that use chlorine to disinfect water. It is possible to use products from Romania and Uzbekistan, but for Ukrainian water utilities this will cost several times more. Karpatneftekhim produces gaseous chlorine which can be used after conversion into a liquid but requires special compressors and additional finance. Due to the rise in price of gas, which costs around 2,000-hryvnia, production has become unprofitable without some government which is not forthcoming.

Azot Grodno Production (unit-kilo tons)		
Product	***Jan-Jul 18***	***Jan-Jul 17***
Methanol	43.3	45.7
Caprolactam	72.0	67.4
Polyamide primary	66.5	59.6
Polyamide filled	7.3	7.1
Ammonia	630.3	677.9
Urea	606.7	664.9
Fertilisers	455.0	483.4
Fibres	24.4	22.6

Belarus

Belarussian petrochemical production, Jan-Jul 2018

Polymir at Novopolotsk incurred a technological stop of the pyrolysis unit in August, lasting one week. As a result, ethylene production volumes decreased by 18% to 5,300 tons, and propylene by 16% to 3,600 tons. For seven months, the Belarusian company produced 40,400 tons of ethylene and 25,700 tons of propylene.

At Grodno, Azot increased output of commodity products by 15.2% for July 2018. Volumes remained fairly stable compared with the same period in 2017. Both urea and ammonia production declined for Azot at Grodno whilst polyamide production rose from 59,600 tons to 66,500 tons.

Belarussian Polymer Imports (unit-kilo tons)		
Product	***Jan-Jun 18***	***Jan-Jun 17***
PVC	17.0	16.6
Polypropylene	49.0	39.6
LDPE	18.7	25.7
LLDPE	10.9	21.7
HDPE	28.2	19.2

Belarussian polymer trade, Jan-Jun 2018

Imports of polyethylene into Belarus decreased by 5% in the first six months of 2018, totalling 58,800 tons compared to 61,900 tons a year earlier. LDPE imports into Belarus totalled 18,700 tons in January-June 2018, compared to 18,400 tons a year earlier, whilst LLDPE imports dropped from 21,000 tons to 10,900 tons. HDPE imports totalled 28,200 tons in the first six months of 2018, up by 27.4% year.

Overall imports of polypropylene into Belarus grew in the first half of 2018 by 6.4%, totalling slightly over 49,500 tons compared to 46,500 tons. Overall imports of homopolymer PP reached 33,600 tons in the first six months of 2018, up by 7.6% year on year. Overall imports of propylene copolymers reached 16,000 tons in January-June 2018, whereas this figure was 15,300 tons a year earlier. Imports of PVC into Belarus rose in the first half of 2018 by 11% to about 17,000 tons from 15,200 tons a year earlier. Russian producers with the share of about 89% of the Belarusian market were the key suppliers of resin to Belarus over the stated period. Producers from Ukraine and Germany were the second and third largest suppliers.

Belarussian PTA Imports (kilo tons)		
Country	***Jan-Jun 18***	***Jan-Jun 17***
Russia	1.2	1.9
Belgium	0.5	3.0
South Korea	5.3	21.5
Poland	7.5	3.7
Total	14.6	33.0

Belarussian PTA imports, Jan-Jun 2018

PTA imports into Belarus totalled 14,600 tons in the first six months in 2018, versus 33,000 tons in the same period in 2017. Imports from South Korea dropped to 21,500 tons against 5,300 tons in January to June 2017, whilst imports from Poland rose to 7,500 tons from 3,700 tons. PTA prices averaged $796 per ton in the first six months against $731 per ton in the same period in 2017.

Belarussian Acrylonitrile Exports (unit-kilo tons)		
Product	***Jan-Jun 18***	***Jan-Jun 17***
Russia	1.6	0.6
Hungary	0.7	1.1
India	0.0	2.0
Iran	1.5	2.8
Netherlands	0.2	10.4
Turkey	17.1	6.1
UAE	0.0	0.1
Total	21.1	23.2

Belarussian acrylonitrile exports, Jan-Jun 2018

Acrylonitrile exports from Belarus dropped from 23,200 tons in the first six months in 2017 to 21,100 tons in the same period in 2018. Turkey was the main market for Belarussian acrylonitrile, accounting for 17,100 tons in the first six months. Average prices for acrylonitrile exports increased to $1596 per ton from $1127 per ton in 2017.

Belarussian chemical exports, Jan-Jun 2018

Phthalic anhydride exports totalled 24,300 tons in the first six months in 2018 against 10,500 tons in the same period in 2017. The rise in exports has been facilitated by the increase in capacity at Lida. The main destinations for Belarussian phthalic anhydride exports included Russia, India and Columbia. Methanol exports have increased slightly this year from Belarus, totalling 11,800 tons in the first six months versus 3,300 tons in the same period last year. This was due to increased domestic consumption of methanol.

Belarussian Organic Chemical Exports (unit-kilo tons)		
Product	***Jan-Jun 18***	***Jan-Jun 17***
Acrylonitrile	21.1	23.6
Caprolactam	4.0	6.2
Phthalic anhydride	24.3	10.0
Methanol	11.8	3.3

Central Asia/Caucasus

KazAzot-Chinese jv to produce methanol

KazAzot and Chinese Inner Mongolia Berun Holding Group are considering the joint construction of a gas chemical complex to be located in the Mangistau region in the west of Kazakhstan. Within the jv, consideration is being given to several plants to produce methanol, nitrogen fertilisers and olefins. Investments in the project are estimated at $348 million, that is more than 1 trillion Tenge. The participation of the Kazakh side in the project will be 39%, and the Chinese 61%.

Uz-Kor Gas Chemical shutdown

Uz-Kor Gas Chemical, the jv established by Uzbekneftegaz and the Korean companies Kogaz, Lotte Group and ST-AE Energy, plans to stop capacity in October for the production of polymers for preventive maintenance. Uz-Kor Gas Chemical will undertake planned maintenance of HDPE and polypropylene production facilities from 3 October to 27 October.

At the facilities of the new complex, the first stage envisages the launch of units for the production of methanol and nitrogen fertilisers with respective capacities of 400,000 tpa and 600,000 tpa. Also, a 300 MW power plant will be built to provide the energy of the complex. Olefins could come later produced from methanol, if a technology license can be secured. The total capacity of the complex if all the plans are undertaken involve 1 million tpa of methanol, 1.2 million tpa of nitrogen fertilisers and up to 600,000 tpa of olefins using MTO technology.

Kiyanly complex in Turkmenistan starts selling polyolefins

On 3 September the first sale of polypropylene and HDPE from a new gas chemical complex at Kiyanly on the Caspian coast took place. The first lots of polypropylene and HDPE with a total volume of about 14,100 tons were sold for export at the State Commodity and Raw Materials Exchange of Turkmenistan. The gas chemical complex at Kiyanly includes capacities for the production of polyethylene of and polypropylene with 386,000 tpa and 81,000 tpa respectively. The complex was built by a consortium of Toyo Engineering (Japan) and LG and Hyundai (South Korea). The total cost of the project was about $3.4 billion.

Uzbek-LG BOPP plant

Korean company LG International and Uzbek chemical association signed a framework agreement for the production of BOPP at an estimated cost of $40 million. The project capacity is set at 3,500 tpa to be constructed in the period 2019 to 2020. Earlier in 2018 the Turkmenbashi complex in Turkmenistan started a new BOPP plant with a capacity of 21,000 tpa.

Relevant Currencies

Czech crown. $1= 20.852. €1 = 27.444: Hungarian Forint. Ft. $1 = 229.253. €1 = 310.141: Polish zloty. zl. $1=3.016. €1 =4.14 Ukrainian hryvnia. $1 = 28.1 €1 = 32.6: Rus rouble. $1 = 70.0 €1= 80.8

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