Edited by Andrew Sparshott | Tel +44 (0)20 8669 5126 | Email enquiries@cirec.net | Web www.cirec.net

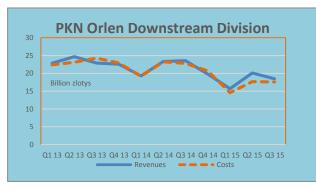
Czech Republic | Slovakia | Hungary | Poland | Bulgaria | Romania | Croatia | Slovenia | Yugoslavia | Baltic States | Russia | Belarus | Ukraine | Transcauscasus | Central Asia | Kazakhstan

Issue 299, 23 October 2015

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# **CENTRAL & SOUTH EAST EUROPE**



# PKN Orlen, Jan-Sep 2015

PKN Orlen performed very strongly in the first three quarters in 2015, reporting higher sales across all divisions and record-breaking retail performance which helped to increase the EBITDA by around zl 3 billion. The third quarter operating profit amounted to zl 2.1 billion, prior to impairment losses of zl 0.1 billion related to the Litvinov olefin plant.

Orlen's downstream division reported a 6% rise in sales in its key markets, including an increase

in gasoline sales by 14%, diesel oil sales by 21%, olefin sales by 7% and PVC sales by 3%. This resulted in an EBITDA of €1.42 billion against losses of €494 million in the same period last year. The rise in operating profits was thus much more significant that the rise in revenues.

PKN Orlen Utilisation Rates %			
Refineries	Q3 15	Q3 14	
Plock	104	100	
Unipetrol	85	93	
Orlen Lietuva	86	78	
Petrochemicals	Q3 15	Q3 14	
Plock (Olefins)	86	66	
Unipetrol (Olefins)	36	89	
BOP Plock (Polyolefins)	76	65	

The downstream division's performance was also boosted by the higher downstream margin (up \$2.6 per barrel) and lower oil prices. Conversely) sales of fertilisers dropped 3% in the third quarter, PTA was down 18% due to maintenance whilst polyolefins was down 28% caused by a breakdown at the ethylene unit at Litvinov in August. This accident meant that the Unipetrol cracker ran at only 36% in the third quarter and may face up to a year before it returns to full capacity. Other petrochemical plants at Plock, belonging to the Orlen group, ran at 86% in the third quarter for the olefins and 76% for polyolefins (BOP).

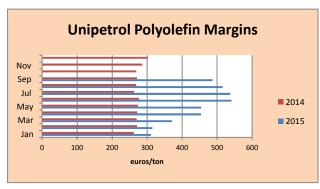
Regarding construction a contract was signed by Orlen with Technip in the third quarter for the construction of a new polyethylene unit (PE3) at the Litvinov plant. The contract's value is Kc 5.8 billion (€213 million) and the overall cost of the project is estimated at Kc 8.5 billion (€314 million). The new facility, which is to replace the existing PE1 unit, will have a production capacity of 270,000 tpa and is

PKN Orlen Group Chemical Sales (unit-kilo tons)				
Product Jan-Sep 15 Jan-Sep 14				
Monomers	675	613		
Polymers	312	287		
Aromatics	234	201		
Fertilisers	509	487		
Plastics	250	230		
PTA	454	411		

scheduled to come onstream in 2018. Other investments in the third quarter included the launch of construction work in September for a project to build Poland's largest 596 MWe CCGT plant at Płock. First steps were also taken to acquire oil and gas assets in Poland and Canada.

For petrochemical production in Poland, PKN Orlen recorded increases in ethylene, propylene, butadiene and phenol in the first three quarters whilst toluene was the only product to fall slightly. For Orlen as a whole, including the Czech assets, sales volumes of petrochemicals, polymers and fertilisers were all

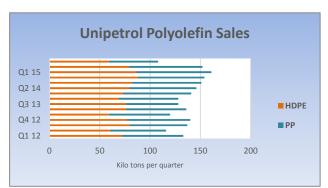
higher in the period January to September 2015 against the same period last year.



#### Unipetrol, Jan-Sep 2015

Unipetrol posted an operational profit of Kc 3.002 billion in the third quarter in 2015 despite the accident at the Litvinov cracker on 13 August which affected petrochemical production. The strong retail sector provided a major stimulus to profitability in the third quarter whilst for petrochemicals PKN Orlen was able to provide deliveries of some feedstock and products to Unipetrol to overcome the shortages caused by the Litvinov accident.

Unipetrol's downstream division recorded an EBITDA of Kc 2.719 billion in the third quarter in 2015, influenced by better refinery products sales and lower crude oil prices, supporting high margins on refinery products. The combined petrochemical margin for the quarter totalled €942 per ton. In the second half of the third quarter Unipetrol was not able to benefit as much from the high polyolefin margins, due to the effects of olefin shortages.



Combined HDPE and polypropylene sales totalled 108,000 tons in the third quarter against 152,000 tons in the second quarter. In total sales volumes of petrochemical products decreased 26% to 332,000 tons. Unipetrol processed 1.840 million tons of crude in the third quarter, 34% on the same period last year. The increase has taken place after completion of acquisition of ENI stake in Česká rafinérská.

The estimated cost of the accident was placed

at Kc 597 million which Unipetrol has set against the figures for Q3 2015. Overall, Unipetrol has calculated the lost profit not covered by business interruption insurance to approximately Kc 1.6 billion for the third quarter. The steam cracker at Litvinov is expected to return to operating levels of around 65% utilisation in July 2016, whilst full capacity utilisation could be possible by October 2016.

#### **PKN Orlen-PTA shutdown**

PKN Orlen started maintenance on its PTA plant at Wloclawek at the end of September, lasting for around a month. PTA production totalled 470,000 tons for the first three quarters in 2015, against 401,000 tons in the same period last year, whilst sales totalled 454,000 tons and 411,000 tons respectively. Exports of PTA in the first half of 2015 totalled 222,128 tons (around 69% of production), of which Germany was the main destination accounting for 158,144 tons.





#### Other refinery news

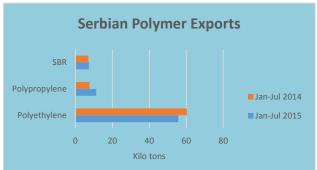
Rompetrol Rafinare stopped refining and petrochemical production at the Petromidia refinery from 11 October to 20 November to conduct a scheduled overhaul that takes place every five years. The Petromidia refinery has an installed capacity of 14,000 tons per day, and in processed 5.05 million tons in 2014. The petrochemical division at Petromidia increased polymer processing by 8.2% or 91,600 tons in the first half of 2015.

Grupa Lotos reduced its refining margin in September to \$7.08 against \$8.51 in September. During the third quarter, the average refining margin amounted to \$9.9 per barrel compared to \$4.8 in the same period in 2014. Subsidiary Lotos Asphalt has signed contracts worth zl 1.26 billion with KT (Kinetics Technology) for the design, supply of equipment and materials and the construction and commissioning start-up of three major installations in the project EFRA or oil processing.

#### **HIP Petrohemija-Goldman Sachs**

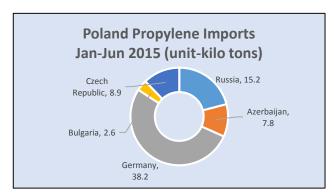
Investment bank Goldman Sachs has shown interest in HIP Petrohemija and speculation in Serbia indicates that it may consider a takeover bid for that company in the near future. HIP Petrohemija comprises nine production plants at sites Pancevo, Elemir and Crepaja. The product portfolio of the company include

ethylene, polyethylene (HDPE, LDPE), propylene (polypropylene), PVC, butadiene, butyl methyl ether (MTBE) and synthetic rubber.



HIP Petrohemija resumed production of ethylene and HDPE on 18 September 2015 after scheduled maintenance, followed by the LDPE plant on 25 September. The synthetic rubber plant at Elemir undertook maintenance from 15 August to 15 September. The company has invested this year in the rubber plant improving energy savings and reducing environmental emissions.

For the period January to July this year, Petrohemija exported 55,000 tons of polyethylene against 60,000 tons in the same period in 2014. The company's turnover ranges from €350 million to €380 million per annum, but despite large-scale restructuring in recent years losses are still being incurred.



# Poland propylene imports, 2015

Poland imported 72,463 tons of propylene in the first half of 2015 of which Germany was the main supplier, shipping 38,200 tons. Average import volumes of propylene into Poland for the period 2010-2014 consisted of around 150,000 tpa. Thus, Poland is particularly dependent on imported propylene to meet derivative demand which has culminated in the announcement by Grupa Azoty to construct a 400,000 tpa propylene plant at its Police subsidiary by 2019.

The propylene installation at Police will play an important role in supplying the Kedzierzyn oxo alcohol plant which consumes 120-140,000 tpa. Construction is scheduled to start in 2016 and be completed



by the end of 2018. Grupa Azoty expects group profitability to increase from this project by approximately 10%. The zl 1.7 billion CAPEX project involves the construction of propylene production and power generating units and extension of the Police port facilities to include a liquid chemicals handling terminal.

# **Chemicals**

The Świnoujście LNG terminal on the Baltic coast

#### Swinjouscie LNG terminal opens

was opened on 12 October, providing Poland with the opportunity of sourcing up to 90% of its gas requirements and rising to 100% in 2016 when fully operational. Construction of the terminal was started in March 2011, well before events in Ukraine began to unfold, which could not have been anticipated. The first shipment from Qatar is expected to arrive in late November or early December. Gazprom will still play an important role in the Polish gas supply balance and may remain the cheapest source but it does provide the flexibility which has

#### **Poland-Caprolactam Exports** Jan-Jun 2015 Country Vol (unit-kilo tons) Belgium 4.917 China 8.75 India 4.75 Germany 5.0315 Thailand Taiwan 13.5 Others 2.663 Total 40.6

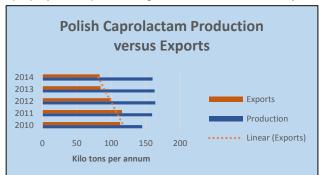
#### Grupa Azoty-caprolactam & polyamide

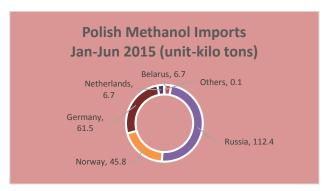
Polish caprolactam exports totalled 40,600 tons in the first half of 2015, slightly down on the same period in 2014 which is a continuation of the downward trend of recent years. The main destinations for Polish

caprolactam exports in the first half this year included China, Germany, Belgium and India. The new 80,000

not previously existed.

tpa polyamide plant being constructed at Tarnow by Grupa Azoty is aimed at helping the group to become





Polish Chemical Production (unit-kilo tons)		
Product	Jan-Sep 15	Jan-Sep 14
Caustic Soda Liquid	241.0	217.2
Caustic Soda Solid	45.4	60.8
Soda Ash	800.1	797.0
Ethylene	405.8	347.6
Propylene	292.4	247.3
Butadiene	46.3	41.7
Toluene	8.7	10.1
Phenol	27.7	23.4
Caprolactam	122.5	125.7
Acetic Acid	8.4	7.3
Polyethylene	281.4	238.4
Polystyrene	39.3	48.4
EPS	60.5	51.1
PVC	244.8	210.8
Polypropylene	188.0	172.2
Synthetic Rubber	152.2	147.0
Ammonia (Gaseous)	979.5	974.9
Ammonia (Liquid)	989.8	953.6
Pesticides	21.7	26.6
Nitric Acid	1755.0	1744.0
Nitrogen Fertilisers	1460.0	1425.0
Phosphate Fertilisers	358.8	306.2
Potassium Fertilisers	279.4	231.1

an important player in the market for engineering plastics. At the same time it would help to reduce the need to sell to markets such as China where export opportunities have been in decline in recent years.

# **Grupa Azoty-ZAK power project**

Grupa Azoty has given initial approval to a zl 2.4 billion (\$648 million) project to build a coal gasification plant at Kedzierzyn-Kozle, which would help boost local demand for coal by 1 million tpa. Earlier in 2015, the Polish government approved the plan for Grupa Azoty to develop the coal gasification project valued at between zl 1.8 billion to zl 4.2 billion, depending on whether it would produce hydrogen or methanol.

Plans for a methanol plant in Poland have come under review some years ago, and could be possibly revived after the power plant has been constructed. Poland imported 233,000 tons of methanol in the first half of 2015, nearly half of which was supplied by Russia. Regarding coal

supply, Poland is estimated to have an oversupply amounting to around 7 million tpa.

The effects of launching a new plant at Kedzierzyn will result up to 7 times less emissions of nitrogen oxides, and 5-fold dust emissions. The environmental permits of the current CHP are set to expire by November 2016 and the extension of the permit may be necessary if the new plant is not ready. Coke for the Kedzierzyn project is to be supplied from ArcelorMittal at Zdzieszowic under long term contracts.

# **Grupa Azoty Pulawy-power project**

In contrast to ZAK Grupa Azoty Pulawy has selected gas for its intended investment in a new power unit, which includes a capacity of 400 MWe. The aim is to start construction in 2016 with 2019 a possible start date. Pulawy's other investment plans include a new installation for mechanical fertiliser granulation and by 2021 a new line for nitric acid. Currently the power plant at Pulawy provides only 28% of the company's demand for electricity and the new gas block, with a value of zl 1.125 billion, will provide total self-sufficiency. The power plant with a capacity of 400 MWe will consume annually around 500 million cubic metres of natural gas.

# Chimcomplexnew power generation plant

Romanian chemical manufacturer Chimcomplex Borzesti completed an investment of 14.35 million Euro into a second

cogeneration plant which allows the company to significantly reduce utility costs. The plant is fuelled with natural gas and hydrogen from renewable sources, and produces electricity and heat needed for production processes in the Chimcomplex plant. Following the two investments in cogeneration plants Chimcomplex has reduced energy costs in chlorine and other chemical production by 42%, whilst CO2 emissions are being reduced by over 17,800 tons per annum.

# **RUSSIA**

Russian Chemical Production (unit-kilo tons)		
Product	Jan-Sep 15	Jan-Sep 14
Caustic Soda	832.0	786.8
Soda Ash	2,281.0	1,854.6
Ethylene	2,017.0	1,749.8
Propylene	1,153.0	998.2
Benzene	832,5	839.0
Xylenes	404.7	393.2
Styrene	496.5	476.3
Phenol	185.2	190.6
Ammonia	10,900.0	11,051.7
Nitrogen Fertilisers	6,299.0	6,188.8
Phosphate Fertilisers	2,433.0	2,377.3
Potash Fertilisers	6,098.0	6,334.5
Plastics in Bulk	5,318.0	4,643.2
Polyethylene	1,313.0	1,176.2
Polystyrene	390.8	401.1
PVC	578.4	471.2
Polypropylene	927.3	735.2
Polyamide	105.3	108.4
Synthetic Rubber	1,117.5	954.7
Synthetic Fibres	95.6	98.1

# Russian chemical industry, Jan-Sep 2015

Russian production in the chemical industry rose 3.6% in the first three quarters in 2015 over the same period in 2014. This has been helped by the combination of increased utilisation of relatively new plants and the weakness of the rouble which has provided a stimulus for some companies. Large producers have been able to report decent increases in profitability in 2015 despite the decline in Russian GDP, estimated by various sources for 2015 at between 3.6-4.0%. Although the outlook for the domestic economy shows no sign of improvement, the weakness of the rouble has helped chemical producers not only in regard to the profitability of exports but also increasing shares in the domestic market visavis imports.

In the polymer sector, polypropylene and PVC production have both risen sharply due to the higher volumes from Tobolsk-Polymer, Polyom and RusVinyl. Other products showing rises have included caustic soda, soda ash and synthetic rubber. Rubber producers have been helped particularly by the depreciation of the rouble. Imports of polymers have been affected by increased domestic production and lower demand, but still remain prominent in some product areas such as LLDPE, propylene and ethylene copolymers.

In the petrochemical sector, ethylene production has benefited from the increased capacity at SIBUR-Kstovo and the resumption of production at Stavrolen. Through technical modifications Gazprom neftekhim Salavat continues to expand its olefin production gradually, whilst Kazanorgsintez and Nizhnekamskneftekhim also have reported slight increases in ethylene this year.

# Russian petrochemical projects

# SIBUR-ZapSibNeftekhim finance agreement

SIBUR has signed an agreement on raising a loan of €400 million from Western banks to support a contract with Technip which will perform FEED, design and supply of equipment for ZapSibNeftekhim (ZapSib-2) project at Tobolsk. To finance the contract with Technip, SIBUR has received approval from the French export credit agency Coface.

#### SIBUR investments & debts 2015

The volume of capital investments for SIBUR in the first half of 2015 increased by 15.1% to 30.5 billion roubles, compared with 2014.

As of 30 June 2015, the total amount of debt for SIBUR amounted to 254.1 billion roubles, an increase of 23.2% compared to 31 December 2014. This was due to the attraction of loans for the purchase of 49% of Yugragazpererabotka, a revaluation of SIBUR's debt denominated in foreign currency, as well as the first loan tranche of €115 million under the cover of export credit agencies for the construction of ZapSibNeftekhim (Zapsib-2).

The total investment in ZapSibNeftekhim (ZapSib-2) amounts to \$9.5 billion, of which up to \$1.75 billion may come from Russia's National Welfare Fund (NWF). The government has developed the NWF over a period of years from oil revenues and is now using the funds to support selected projects. However, there are still question marks whether ZapSib-2 will receive all of the \$1.75 billion. Zapsib 2 involves the construction of pyrolysis unit capacity of 1.5 million tpa of ethylene (technology Linde), as well as about 500,000 tpa of propylene (technology LyondellBasell) and 100,000 tpa of C4s. Polyethylene capacity of 1.5 million tpa will be established at Tomsk using Ineos technology.

#### Zapsib-2, installation update

Equipment for polymerization has started to be installed for the Zapsib 2 project at Tobolsk where work is being undertaken by local and regional companies. The steam cracker is being constructed on an area of 460 hectares. Zapsib-2 will be part of the Tobolsk industrial area, which will operate in close conjunction with Tobolsk-Neftekhim and Tobolsk-Polymer.

Key parts of the project consist of the significantly expanded capacity for gas fractionation at Tobolsk-Neftekhim, rising from 3.8 million tpa to 6.6 million tpa, and the NGL pipeline construction between Novatek's Purovsky Gas Condensate Plant to Tobolsk. Other -Petrochemicals" and double the capacity of the station uncommon Denisovka Sverdlovsk railway.

for completion in March 2016.

The €400 million loan from Western banks is part of the total €2.92 billion to be provided by international co-investors, Russian Direct Investment Fund and commercial banks. German loans for the project worth €1.575 billion were granted under cover of export-credit agency Euler Hermes to finance contracts concluded with Linde for the ethylene complex and ThyssenKrupp Industrial Solutions for the polypropylene plant.

# **Amur Gas Processing Plant-Linde**

Gazprom has chosen Linde as the main licensor Amur gas processing plant (Amur GPP), whilst also a consortium of Air Liquide and Daelim Industrial has been selected to support the project. The Amur GPP at a design capacity of 49 million cubic metres per annum would comprise the largest gas processing plant in Russia. The project has received a positive assessment from the public hearing held on the impact on the environment. The design stage is scheduled

#### **NIPIGas-Amur GPP**

SIBUR engineering subsidiary NIPIGas is undertaking design of the Amur GPP and has successful experience in managing large investment projects for the processing of hydrocarbons. SIBUR has a direct interest in the construction and investment plans for the Amur GPP in order to provide the feedstock basis for the Amur Gas Chemical Complex.

#### SIBUR, pre-Feed for Amur Gas Chemical Complex

SIBUR is nearing completion of the pre-FEED stage for the Amur Gas Chemical Complex. This will determine the configuration and capacity size for the relevant complex and plants. SIBUR hopes to start attracting licensors for the project in 2016, a process that is likely to last around eighteen months. At the end of this process, probably 2017, a decision will made on project timing, etc. Sinopec is trying to buy a small stake in SIBUR at present and is also considering

participation in the construction of the Amur chemical complex along, with other projects of the holding. The complex is expected to attract project finance from Chinese banks

After Zapsib-2, the Amur Gas Chemical Complex may represent the main priority project for SIBUR. The size of the ethylene capacity is likely to range anywhere between 1.2 million tpa and 2.4 million tpa. Capacity to produce petrochemicals is unlikely to be ready prior to 2022-2023, intended to develop in parallel with the introduction of the third stage of the Amur GPP by Gazprom. The formula of ethane from the purchase of Gazprom will depend eventually on the value of refined products such as polyethylene.



# **Novy Urengoy Gas-Chemical Complex-energy supply**

In October oversized cargo weighing more than 87 tons was shipped from Lübeck to the construction site of Novy Urengoy Gas and Chemical Complex. High circulating pumps from Ruhrpumpen, designed to supply a low-pressure hot water and ensure uninterrupted maintenance of the optimum temperature for the polymerization reaction.

Also in October the gas turbine power plant (CCGT) at Novy Urengoy, which involves a capacity of 120 MW and is assumed to be sufficient for the operation of gas-chemical complex, was in the process of starting. An energy connection from the Unified National Power Grid to the gas turbine power plant was established in September.

Since sanctions have been applied to Russia Gazprom has been unable to access further international loans to complete the project and has had to turn to domestic banks such as Sberbank at higher interest rates. Moreover there are loans worth around \$250 million to repay to Western banks in 2016. Earlier in 2015 the gas chemical complex completed the establishment of ethylene storage tanks, allowing preparation of facilities for hydraulic testing. The project status for the Novy Urengoy Gas Chemical Complex is rated at around 70% and 2017-2018 is the latest start-up target.

# Russian petrochemical producers & markets

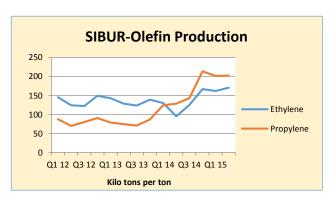
SIBUR's Monomer & Intermediate Production (unit-kilo tons)		
Product	Jan-Jun 15	Jan-Jun 14
Benzene	74.9	51.9
Styrene	90.8	89.7
PTA	132.0	132.1
Propylene	407.6	252.4
Ethylene Oxide	145.9	66.7
Butadiene	121.3	106.1
Isoprene	38.1	30.4
Isobutylene	80.5	74.6
Ethylene	332.1	225.1
Other Intermediates	629.9	591.4
Other Chemicals	413.6	325.4
Purchases from 3rd parties	9.4	8.1
Total	2,476.1	1,953.7

# SIBUR, Jan-Jun 2015

SIBUR increased net income by 11.7% in the first half of 2015 over 2014, whilst the company's revenue increased by 5.6%. The main facet of the performance in the first half of 2015 was the rise in EBITDA rom the petrochemical division which outshone the energy product division where sales remained relatively flat.

SIBUR achieved total revenues of 181.4 billion roubles in the first half of 2015, from which petrochemicals accounted for 86.8 billion roubles and was 34% up on 2014. In the first half of 2015, SIBUR's revenue from sales of energy products decreased by 18.6% to 87.459 billion roubles from 107.394 billion roubles in 2014. The decrease was primarily attributable to lower naphtha sales volumes after SIBUR folded trading operations at the Ust-Luga transhipment facility. Also, falling prices for most

products failed to offset the value of the weaker rouble.



Russian Ethylene Production (unit-kilo tons)			
Producer	Jan-Sep 15	Jan-Sep 14	
Angarsk Polymer Plant	136.6	157.6	
Kazanorgsintez	413.3	384.0	
Stavrolen	136.0	53.6	
Nizhnekamskneftekhim	424.0	455.0	
SANORS	49.2	55.0	
Gazprom N Salavat	189.1	205.0	
SIBUR-Kstovo	250.3	115.8	
SIBUR-Khimprom	37.2	35.7	
Tomskneftekhim	183.1	198.9	
Ufaorgsintez	102.4	88.4	
Total	1921.1	1749.1	

Overall, SIBUR's EBITDA for the January-June increased by 30.6%, amounting to 64.6 billion roubles. The EBITDA margin was calculated at 35.6%, including 31.4% for petrochemicals. Adjusted net profit of SIBUR for the period totalled 34.3 billion roubles against 30.3 billion roubles in 2014.

# SIBUR petrochemical division, H1 15

In the first half of 2015, SIBUR's revenue from sales of petrochemicals increased by 44.9% to 86.841 billion roubles from 59.930 billion roubles in 2014.

This was due to rises in revenues across all product groups. Tobolsk-Polymer's production of polypropylene provided a major factor in the growth of revenues for SIBUR, accounting for around 18% of total petrochemical sales. Since start-up of the Tobolsk polypropylene plant, as shown in the graphic opposite SIBUR's total propylene production has overtaken ethylene production. Propylene volumes are likely to remain higher than ethylene until the start-up of the Zapsib-2 complex.

Higher sales of intermediates for SIBUR in the first half of the year was attributable to the expansion of the steam cracker in Kstovo, as well as providing ethylene supplies to RusVinyl. SIBUR's revenues from the sales of plastics and organic synthesis products increased by 45.3% in the first half in 2015, helped by the expansion of production

capacity for PET and BOPP film and a rise in glycol production.

Rouble depreciation was also a key factor driving up revenues. SIBUR's production of plastics and organic chemicals in the first half of 2015 increased by 26.2% over 2014 to 523,870 tons, whilst sales increased by 27.2% to 472,600 tons. Revenue from sales of synthetic rubber increased by 29.2% to 8.1 billion roubles due to higher capacity utilisation, the weakening of the rouble and increased shipments of thermoplastic elastomers.

### Russian propylene developments

Lukoil-NNOS at Kstovo, opened its new catalytic cracking complex in October, adding more capacity for propylene production which could be sold on the domestic market. The new complex will significantly increase the yield of light oil products to produce an additional 1.1 million tons of gasoline, and 150,000 tpa of propylene.

Titan has introduced a new scheme for propylene purification at Omsk Kaucuk, which allows for the separation of propylene from propane-propylene fractions. The purification process includes several stages including drying on zeolites, removing acetylene and diene hydrocarbons, etc. Propylene, obtained is directed to the production of polypropylene at

Russian Propylene Domestic Sales by Consumer (unit-kilo tons)			
Consumer	Jan-Sep 1	5 Jan-Sep 14	
Saratovorgsintez	127.1	133.8	
Volzhskiy Orgsintez	7.7	9.2	
Akrilat	16.5	27.6	
SIBUR-Khimprom	58.9	44.3	
Omsk-Kaucuk	5.9	36.0	
Tomskneftekhim	11.3	0.0	
Nizhnekamskneftek	him 6.4	0.5	
Ufaorgsintez	3.1	15.8	
Gazprom n Salavat	0.7	0.0	
Stavrolen	22.7	1.8	
Kazanorgsintez	2.1	5.3	
Samaraorgsintez	10.4	6.1	
Khimprom Kemerov	o 3.5	1.4	
Plant-Synthetic Alco	hol 7.2	4.8	

# Polyom which is also part of Titan.

Russian propylene market, Jan-Sep 2015
Sales of merchant propylene in the Russian market totalled 283,600 tons in the first three quarters in 2015, against 286,600 tons in the same period last year. Although the merchant market has seen little change the amount of propylene used captively has risen significantly, mainly attributable to Tobolsk-Polymer.

In the merchant market the acrylonitrile producer Saratovorgsintez remained the largest buyer in 2015, accounting for 127,100 tons in the first three quarters most of which was sourced mostly from Lukoil-NNOS. SIBUR-Khimprom, which uses propylene for oxo-alcohol production, is the second largest buyer in the Russian market, accounting for 58,900 tons in the first three quarters this year. Other buyers of

merchant propylene include Akrilat at Dzerzhinsk, for the production of acrylates, Samaraorgsintez for cumene, and the Plant of Synthetic Alcohol which uses propylene for the production of isopropanol.

286.6

Russian Propylene Exports (unit-kilo tons)		
Producer Jan-Sep 15		Jan-Sep 14
Lukoil-NNOS	2.4	0.0
SIBUR-Kstovo	42.2	8.5
Angarsk Polymer Plant	10.4	0.0
Total	55.0	8.5

283.6

Total

Stavrolen purchased 22,700 tons of merchant propylene in the first three quarters this year for the production of polypropylene, but that was mostly prior to the restart of the cracker at Budyennovsk in April. Most of the propylene produced is used captively for polypropylene, and the company sells only small volumes on the merchant market. Other petrochemical producers, such as Nizhnekamskneftekhim, Kazanorgsintez, Tomskneftekhim

and Ufaorgsintez occasionally need to purchase small volumes of merchant propylene to supplement their own production.

Due to increased supply this year Russian propylene exports totalled 55,000 tons in the period January to

Russian Styrene Domestic Sales (unit-kilo tons)		
Producer	Jan-Sep 15	Jan-Sep 14
Angarsk Polymer Plant	14.8	4.9
Plastik	3.0	1.0
Gazprom n Salavat	24.4	26.9
SIBUR-Khimprom	25.1	24.6
Nizhnekamskneftekhim	2.0	0.0
Total	69.3	57.4

September 2015 against only 8,500 tons in 2014. Poland has accounted for 52% of Russian propylene exports in January to September 2015. SIBUR-Kstovo has accounted for the largest share of exports following increases in capacity in 2014, whilst Lukoil-NNOS may now be able to export greater volumes following the launch of its new catalytic cracking complex.

### Russian styrene, Jan-Sep 2015

Russian styrene sales on the domestic market totalled 69,300 tons in the first three quarters in 2015 against 57,400 tons in the same period last year. The key factor

behind the rise was that Angarsk Polymer Plant increased product shipments from 4,900 tons in January to September 2015 to 14,800 tons in 2015.

# **Bulk Polymers**

Russian HDPE Imports (unit-kilo tons)			
Category	Category Jan-Sep 15		
Extrusion	39.9	43.7	
Pipe	24.9	66.7	
Film	10.8	28.7	
Blow	19.3	39.4	
Injection	35.1	33.8	
Others	10.3	12.4	
Total	140.3	224.7	

# Russian HDPE, Jan-Sep 2015

Russian HDPE imports totalled 140,300 tons in the first nine months in 2015, 38% lower than in 2014. The largest decline in imports occurred in the film and tubular polyethylene sectors. Pipe grade HDPE imports dropped from 66,700 tons in the first three quarters in 2014 to 25,900 tons in the same period in 2014.

The key factors that influenced the decline in imports include a sharp fall in demand for finished products in the domestic market (20%), and a significant devaluation of the Russian rouble against the major world currencies. The only import grade to show an improvement in

January to September this year has been injection moulding grades.

In the first nine months of 2015 Russian HDPE production increased by 6% over the same period in 2014 to a total of 660,000 tons. Kazanorgsintez was the largest producer, producing 361,500 tons or 4% down

Russian HDPE Production (unit-kilo tons)			
Producer	Jan-Sep 14		
Kazanorgsintez	361.5	378.2	
Stavrolen	123.0	47.9	
Nizhnekamskneftekhim	107.9	130	
Gazprom n Salavat	67.6	67.6	
Total	660.0	623.7	

against 2014. Stavrolen was the second largest producer (123,000 tons), having restarted in April after the year-long outage, whilst Nizhnekamskneftekhim has reduced HDPE production (107,900 tons against 130,000 tons) in 2015 at the expense of LLDPE production. The smallest Russian producer, Gazprom neftekhim Salavat, retained production at the same level as in 2014 (67,600 tons). Kazanorgsintez restarted HDPE production at the 125,000 tpa unit on 1 October after a two week outage,

followed by the LDPE plant on 10 October.

#### Russian LLDPE imports, Jan-Sep 2015

LLDPE imports totalled 141,800 tons in the first three quarters in 2015, 12% down on the same period in 2014. The reduction of imports resulted primarily due to lower demand, but also assisted by higher

Russian Polypropylene Imports (unit-kilo tons)		
Category Jan-Sep 15 Jan-Sep 14		
Homopolymers	38.4	45.5
Block	21.1	29.5
Random	25.3	25.9
Other	19.6	34.0
Total	104.4	134.9

production by Nizhnekamskneftekhim. Nizhnekamskneftekhim plans to produce around 50,000 tons of LLDPE in 2015.

# Russian polypropylene, Jan-Sep 2015

Russian polypropylene imports totalled 104,400 tons in the first three quarters of 2015, 22% down on the same period last year. The largest decrease occurred for block copolymers, falling 40% to 21,100 tons. Homopolymer imports dropped from 45,500 tons to 38,400 tons whilst random copolymer imports fell only slightly

from 25,900 tons to 25,300 tons. The decline in imports has been mostly influenced by increased domestic production, from Tobolsk-Polymer, Polyom and Stavrolen.

Russian Polypropylene Production (unit-kilo tons)		
Producer	Jan-Sep 15	Jan-Sep 14
Ufaorgsintez	94.5	89.6
Stavrolen	82.4	27.2
Moscow NPZ	88.2	87.4
Nizhnekamskneftekhim	162.0	160.2
Polyom	141.8	124.3
Tomskneftekhim	99.8	92.3
Tobolsk-Polymer	258.6	154.2
Total	927.3	735.2

Russian polypropylene production increased by 28% in the first three quarters in 2015 to 927,300 tons. Production slowed to 74,700 tons in September against 83,000 tons in August due to shutdowns at Tobolsk-Polymer, Tomskneftekhim and Polyom. Tobolsk-Polymer undertook maintenance from late August to early September and thus only produced 19,100 tons in the latter month.

Production at Tobolsk totalled 258,600 tons in the first three quarters against 150,700 tons in the same period last year. Polyom at Omsk produced 141,800 tons against 125,300 tons in 2014, whilst Stavrolen increased

production from 18,100 tons to 82,400 tons in January to September 2015. Tomskneftekhim from late August to mid-September stopped for maintenance work and only produced 6,000 tons in the second half

of the month. The Tomsk plant increased production by 7% in the first three quarters this year to 99,800 tons. Ufaorgsintez increased production by 5% in the first three quarters to 94,500 tons, whilst Nizhnekamskneftekhim and the Moscow plant were slightly up on 2014 at 162,000 tons and 88,200 tons respectively.

SIBUR Polypropylene Sales (billion roubles)			
Sales	Jan-Jun 15	Jan-Jun 14	
Domestic Sales	8,911	5,994	
Exports	7,465	3,475	
Total	16,376	9,469	
SIBUR LDPE Sales (billion roubles)			
Sales	Jan-Jun 15	Jan-Jun 14	
Domestic Sales	5,707	4,259	
Exports	3,519	3,166	
Total	9,226	7,425	

while 42.9% was attributable to export sales.

#### SIBUR, polymers Jan-Jun 2015

In the first half of 2015, SIBUR's revenues from sales of basic polymers increased by 52.6% to 25.480 billion roubles from 16.695 billion roubles in the first half of 2014. The increase was largely attributable to higher PP sales volumes following an increase in Tobolsk-Polymer's age capacity utilisation rate.

The growth was also driven by higher average selling prices for polypropylene and LDPE due to the Russian rouble depreciation despite lower international benchmark prices. In the first six months of 2015, domestic sales accounted for 57.1% of total basic polymers revenue,

#### SIBUR-polypropylene sales, Jan-Jun 2015

SIBUR's revenues from polypropylene sales increased by 75.3% in the first half of 2015 to 16.252 billion roubles, based on a 43.1% increase in sales volumes. Tobolsk-Polymer increased polypropylene production by 69% in the first half of 2015, whilst SIBUR increased internal usage of polypropylene following the capacity expansion at BOPP-film production site at Novokuibyshevsk. The increase in export selling prices for PP

Russian PVC Imports (unit-kilo tons)		
Source	Jan-Sep 15	Jan-Sep 14
US	13.6	50.5
China	43.5	145.0
Europe	8.9	26.6
Others	1.0	14.5
Total	67.0	236.6

was largely attributable to the weak Russian rouble despite lower international market prices. In the first half of 2015, domestic sales accounted for 54.4% of total PP revenue, while 45.6% was attributable to export sales.

# Russian PVC market, Jan-Sep 2015

Russian PVC imports fell by 3.5 times in the first nine months this year to 67,000 tons from 236,600 tons in 2014. At the same time exports rose from 1,700 tons to 16,200 tons. Whilst import volumes dropped sharply in the first half of the year Imports

increased in August and September due to plant outages in Russia, amounting to 24,200 tons and 19,700 tons respectively. The main causes of decline this year have been the rise in production and the simultaneous fall in demand. China has provided around two thirds of PVC imports in the first three quarters, but even then only amounting to 43,400 tons against 145,000 tons in the same period last year.

Russian PVC Production (unit-kilo tons)		
Producer	Jan-Sep 15	Jan-Sep 14
Bashkir Soda	176.4	172.3
Kaustik	71.6	71.9
RusVinyl	169.2	6.4
Khimprom	0.0	13.8
Sayanskkhimplast	161.2	206.8
Total	578.4	471.2

Russian PVC production totalled 578,800 tons in the first three quarters in 2015, 23% up on the same period in 2014. Production amounted to 55,300 tons in September against 49,900 tons in August. RusVinyl has been the main contributor to the higher PVC production in Russia this year, whilst Sayanskkhimplast reduced production by 22% to 161,500 tons due to ethylene supply restrictions.

Bashkir Soda increased production by 2% in January to September 2015 to 176,400 tons. The company aims to increase capacity at the Sterlitamak plant to 240,000 tpa in

2016. Kaustik at Volgograd produced 71,600 tons in the first three quarters this, 300 tons down on 2014, whilst the other Volgograd plant (Khimprom) stopped production in late last year.

Having started production only in September 2014 RusVinyl has played the key role in balancing the PVC market in Russia in 2015. The Kstovo plant produced 169,200 tons in January to September 2015 against 6,400 tons in 2014. Maintenance was started on 23 September and thus production dropped to 15,300 tons in September against 24,000 tons in August. The outage lasted around two weeks and production restarted on 7 October. Nearly all of RusVinyl's production is sold on the domestic market.

### Russian polycarbonate, Jan-Sep 2015

Imports of polycarbonate into Russia declined 36% in the first three quarters in 2015 against the same period last year, amounting to only 17,700 tons. The decline is attributed principally to the rouble weakness, itself

#### **Styrene Acrylonitrile Copolymer Duties**

The Russian duty for styrene acrylonitrile copolymers was reduced by 1.2% from 1 September to 6.5%. Russia does not have its own production facilities for styrene acrylonitrile copolymers. During the first half of the year, the country imported a little over 800 tons, 2.4 times lower than in 2014. The main volumes were supplied by Styrolution in 2015 whilst last year the main supplier was Korean company Kumho.

attributed to the global oil price, whilst the situation was aggravated by the poor economic performance and the general decline in consumer activity in the country. Consumption of polycarbonate has declined in all of main application areas including construction, automotive, electrical and electronics.

Russian company Polidin (established by Slavtek) is building a plant at Krasnodar for the production of polycarbonate sheets. The company currently produces cellular and solid polycarbonate sheets, with a plant capacity of 6,500 tpa.

# **PX-PET Chain**

Russian PX Production			
Producer	Jan-Sep 15	Jan-Sep 14	
Gazprom Neft	128.9	111.5	
Ufaneftekhim	80.6	82.1	
Kinef, Kirishi	44.4	50.7	
Total	253.9	244.3	
Russian	PX Domestic	Sales	
Producer	Jan-Sep 15	Jan-Sep 14	
Gazprom Neft	64.3	50.7	
Ufaneftekhim	79.0	81.5	
Kinef	0.2	0.2	
Total	143.6	132.4	
Russ	sian PX Expor	ts	
Producer	Jan-Sep 15	Jan-Sep 14	
Gazprom Neft	42.3	34.4	
Ufaneftekhim	43.7	33.8	
Kinef	2.0	1.0	
Total	88.0	69.2	

#### Russian paraxylene market, Jan-Sep 2015

Russian paraxylene production totalled 253,900 tons in the first three quarters in 2015, against 244,300 tons in the same period in 2014. Russian domestic sales of paraxylene totalled 143,600 tons in the first three quarters in 2015 against 132,400 tons in the same period last year. Sales have been bolstered by increased PTA production, with SIBUR acting as the main consumer.

# Bashneft to expand aromatics capacity

Bashneft hopes to proceed with the modernisation of facilities for the production capacity of aromatics, starting the project investments in 2017. The RusPETF PTA-PET project at Ufa has been rendered null and void although this has not stopped Bashneft pursuing its expansion plans for paraxylene.

The aim is to increase the capacity of aromatics by around 50%, in particular increasing paraxylene capacity at Ufaneftekhim to 260,000 tpa. In 2014 the Ufaneftekhim refinery produced 83,900 tons of benzene, 112,000 tons of paraxylene and 51,200 tons of orthoxylene.

#### SIBUR, paraxylene purchases Jan-Jun 2015

SIBUR's paraxylene costs increased by 19.7% in the first half of 2015 to 3.008 billion roubles from 2.513 billion roubles in the same period in 2014, increasing as a percentage of total feedstock and materials expenses to 7.4% from 6.5%. As part of the tax

manoeuvre in the Russian oil industry, starting for the first time in 2015, an excise duty was set for paraxylene which resulted in a 19.6% increase in the average purchase price.

SIBUR Paraxylene, PTA-PET Chain (unit-kilo tons)			
	Jan-Jun 15	Jan-Jun 14	
Paraxylene Purchases	87.399	87.368	
PTA Production	132.014	132.083	
PTA Domestic Sales	4.045	14.49	
PTA Exports	1.379	7.96	
PET Production	149.791	141.793	

At the same time SIBUR is eligible for tax deduction, as he group processes paraxylene into non-excisable petrochemical products. As a result the group was able to recover 1.272 billion roubles in the first half of 2015. The increase in Russian paraxylene prices in 2015 was also attributable to higher netbacks for naphtha (benchmark in paraxylene pricing) in Russian rouble terms.

# **PTA project Tatarstan**

The Tatar bank AK Bars Holding is considering support for

revived plans for the construction of a PTA and PET plant in Tatarstan whereby around 18.6 billion roubles (\$283 million) could be invested into 100% subsidiary Safpet. Finance for the project could come from the

Russian state bank VEB, providing around 14.8 billion roubles. Approximately, 3.1 billion roubles has been allocated from the company's own resources and another 700 million roubles from the Tatar Fund for Industrial Development.

Safpet PTA-PET Projects in Tatarstan		
Product	Capacity	
PTA	210	
Fibres	87.5	
PET food grade	250	
2. PET bottle grade	210	
Selection choice between 1 and 2		

If VEB approves the loan, the plant will be built within 28 months, but if not alternative sources of finance may be available. In 2014, the consumption of PTA in Russia decreased by 3% to 345 000 tons but the outlook remains promising. Safpet wants to build a PTA plant of 210,000 tpa, with the aim to produce 250,000 tpa of food grade PET or 200,000 tpa of PET bottle grade resin. Another potential outlet could be fibres, producing around 87,500 tpa.

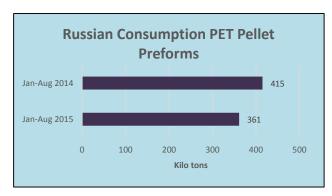
Regarding paraxylene, Taneko is aiming to construct a new plant at Nizhnekamsk by 2018 which it had been previously considering but was scrapped following the global banking crisis. Safpet has already made a provisional agreement for paraxylene supply from Taneko up to 2026. The construction of a new PTA plant would provide a stimulus to the PET market in Russia, particularly in view of new plants under planning and construction at Kabardino-Balkaria and Ivanovo. The former of those two PET projects at Kabardino-Balkaria remains in the balance, with access to capital particularly difficult and a decision on the project's future is expected in late November this year.

SIBUR-PET Sales (unit-kilo tons)		
	Jan-Jun 15	Jan-Jun 14
Domestic	157.7	135.9
Export	1.0	0.3
Total	158.6	136.3

# SIBUR-PET, Jan-Jun 2015

In the first half of 2015, SIBUR's revenues from PET sales increased by 46.5% to 9.886 billion roubles from 6.749 billion roubles as a result of a 26.1% increase in the average price and a 16.1% increase in sales volumes. The increase in the average price was attributable to the Russian rouble depreciation.

The increase in sales volumes on a 5.6% growth in production volumes was largely attributable to substantial sales of inventories accumulated during 2014. The production growth was applicable to the PET capacity expansion at our production site in Blagoveshchensk (increase in annual nameplate production capacity from 140,700 tons to 210,000 tons). In the first half of 2015, domestic sales accounted for 99.2% of total PET revenue, while 0.8% was attributable to export sales.



#### Russian PET market, Jan-Sep 2015

Russian PET imports totalled 54,700 tons in the first three quarters in 2015 against 166,000 tons in the same period last year. Imports have fallen this year as domestic production has risen, whilst overall demand has been affected by the weakness of the economy. China accounted for 67% of imports into Russia in the first three quarters, followed by the UAE with 13% and Lithuania with 12%.

The devaluation of the rouble has not only helped drive down imports but also has helped increase

revenues for PET sellers in Russia, despite the drop in volumes in tonnage terms. In January-August, the capacity of the Russian market of PET bottle increased by 2.25% over the same period a year earlier and amounted to 28.3 billion roubles. The issue of PET packaging for beer remains a controversial issue in Russia, with the one hand some institutions favouring significant restrictions and other others opposing their introduction in terms of potential benefit.

# Alko-Naphtha-terminal suspension

Alko-Nafta has suspended its jv for the construction of a container terminal in the Kaliningrad region. The terminal was being constructed to support the export of PET. Earlier, Alko-Nafta planned to build a container terminal on the site of the Baltic Marine Industrial Park, but that also did not materialise. Alko-Naphtha is based on the territory of the free economic zone of the Kaliningrad region. The capacity for the production of PET reached 220,000 tpa.

#### Russian MEG, Jan-Sep 2015

MEG sales on the domestic market amounted to 8,010 tons in September against 15,300 tons in August. Sales totalled 111,483 tons in the first nine months in 2015, of which around 80% came from SIBUR-Neftekhim and Polief was the main consumer accounting for 60% of shipments. As PET production in Russia has been rising this year the demand for MEG on the domestic market has risen with a subsequent downward impact on export activity.



billion roubles from 1.463 billion roubles in 2014.

[	billion roubles from 1.463		
	Russian Benzene Sa	•	•
	Synthesis Total	<b>Jan-Sep 15</b> 449.4	<b>Jan-Sep 14</b> 435.0
	Angarsk Polymer Plant	30.4	44.6
	SIBUR-Kstovo	51.7	22.1
	Severstal	29.6	27.1
	Uralorgsintez	61.9	63.7
	Kirishinefteorgsintez	38.3	47.4
	West Siberian MC	49.3	44.9
	Ryazan NPZ	18.7	18.6
	Slavneft-Yanos	48.8	43.8
	Gazprom Neft (Omsk)	79.3	76.0
	Gazprom Neftekhim Salavat		11.8
	Stavrolen	16.7	14.3
	Kuibyshevazot	2.0	0.0
	Ufaneftekhim	11.8	14.6
	Zaporozhkoks	0.5	0.0
	Ukrtatnafta	0.0	0.0
	Yasinovsky Coke	0.0	3.2
	ArcelorMittal	3.1	3.1
	Nitration Total	26.1	24.9
	Novolipetsk MK	20.5	15.7
	Chelyabinsk MK	5.6	9.2
	Crude	83.9	97.0
	Altay-Koks	9.7	20.9
	Koks	24.8	22.5
	Magnitogorsk MK	35.8	34.2
	Nizhny Tagil MK	11.3	9.1
	Novokuznetsk MK	0.0	1.9
	Moskoks	0.7	5.9
	Ural Steel	1.6	2.4
	Full Total	562.6	556.9

Imports in September amounted to 2,520 tons, 28% down on August. Russian MEG imports totalled 12,319 tons in the first three quarters in 2015, against 16,712 tons in the same period in 2014. Exports amounted to 5,340 tons in September, 26% up on August. Russian MEG exports totalled 75,000 tons in the first three quarters against 36,000 tons in the same period last year.

SIBUR's revenues from MEG sales increased three times in the first half of the year to 4.444 Increased production in the first half of 2015 was attributable to no interruptions to supply as with the lengthy shutdowns experienced at Dzerzhinsk in the first half of 2014. In the first six months of 2015, domestic sales accounted for 44.1% of total glycols revenue, while 55.9% was attributable to export sales.

#### **Aromatics & derivatives**

#### Russian benzene market, Jan-Sep 2015

Russian benzene production totalled 832,500 tons in the first nine months in 2015, against 839,000 tons in the same period in 2014. Nizhnekamskneftekhim produced 143,900 tons in 2015, making it the largest producer. Regarding the domestic merchant market, shipments of benzene amounted to 52,700 tons in September, 17% up on August.

The West Siberian Metallurgical Combine shipped 6,500 tons in September, 1.5 times more than in August, whilst Gazprom neftekhim Salavat and Ufaneftekhim resumed domestic sales for the first time since June and April respectively. The Salavat plant shipped 2,000 tons in September and Ufaneftekhim 1,700 tons. SIBUR-Kstovo reduced benzene shipments by 19% against August to 4,500 tons and Stavrolen by 39% to 4,900 tons. Angarsk Polymer Plant resumed deliveries in September shipping 3,100 tons whilst the Ryazan refinery increased shipments by 1.8 times, to 12,000 tons.

In the first three quarters domestic plants shipped 562,600 tons to the domestic market, almost the same as in 2014. In this period Russian companies imported 3,100 tons of benzene from ArcelorMittal Temirtau, 4% less than in 2014. In September Kuibyshevazot purchased 300 tons of benzene from ArcelorMittal Temirtau, whilst the other importer Kazanorgsintez did not import.



#### Russian aromatic duties

The rate of export duty on aromatic hydrocarbons in October decreased by 16.2% compared to September. Exports of benzene, xylenes and toluene dropped to \$43.9 per ton against \$52.4 in September. The rate of Russian export duty on aromatic hydrocarbons in September fell by 18% relative to August to \$44 per ton. Export duties for benzene, xylenes and toluene dropped to \$52.4 per ton in August, against \$63.8 per ton in July and \$68.6 in June. By comparison, the rate in January 2015 stood at \$81.6 per ton. In 2015 the rate of

excise duty for benzene, paraxylene and orthoxylene is set at 2,300 roubles per ton, rising to 3,000 rouble in 2016 and 3,500 roubles in 2017.

Russian Orthoxylene Domestic Sales (unit-kilo tons)		
Producer	Jan-Sep 15	Jan-Sep 14
Gazprom Neft	41.5	51.0
Ufaneftekhim	27.7	26.7
Kirishinefteorgsintez	26.1	35.5
Total	95.3	113.3

# Russian orthoxylene, Jan-Sep 2015

Sales of orthoxylene on the Russian domestic market amounted to 9,140 tons in September 16% less than in August and 31% lower than in September 2014. Ufaneftekhim was the largest supplier in September, shipping 3,590 tons or 39% of Russia's total shipments. Gazprom Neft sold 3,210 tons and company Kirishinefteorgsintez 2,340 tons.

Kamteks-Khimprom reduced purchases of orthoxylene by 9% in September against August to 4,150 tons, whilst Gazprom neftekhim Salavat purchased only 530 tons. Russian paint manufacturers reduced purchases of orthoxylene by 50% in September against August to 1,850 tons. Manufacturers of fuel, agricultural chemistry, pharmaceuticals and other products bought another 1,640 tons in September. From January to September 2015 domestic sales of orthoxylene totalled 95,300 tons, which was 17% down on the same period in 2014.

Russian Toluene Domestic Sales (unit-kilo tons)		
Producer	Jan-Sep 15	Jan-Sep 14
Novopiletsk MK	1.5	1.0
Slavneft-Yanos	21.8	33.9
Severstal	5.6	4.9
LUKoil-Perm	11.2	25.2
Gazprom Neft	35.5	21.2
Zapsib	3.1	2.9
Kinef, Kirishi	20.9	18.8
Gazprom n Salavat	0.1	0.0
Others	0.9	12.2
Total	100.7	120.0

Russian Phenol Sales by Supplier (unit-kilo tons)			
Producer	Jan-Sep 15	Jan-Sep 14	
Omsk Kaucuk	0.0	10.9	
Samaraorgsintez	33.8	38.1	
Kazanorgsintez	8.2	8.0	
Ufaorgsintez	27.5	26.3	
Sterlitamak NPZ	0.0	0.0	
LUKoil-VNPZ	0.0	0.1	
Borealis	2.0	2.1	
Total	71.7	85.5	

Russian orthoxylene exports amounted to 6,000 tons in September, 45% less than in August. The sole supplier in September was Gazprom Neft from the Omsk refinery. Finland was the main destination in September, accounting for 3,000 tons, followed by Bulgaria with 1,860 tons and Turkey 1,070 tons. Exports totalled 59,440 tons in the first three quarters which was up 17,200 tons on the same period last year.

# Russian toluene sales, Jan-Sep 2015

Domestic rail shipments of toluene to Russian consumers amounted to 8,330 tons in September, 27% less than in August this year, and 35% lower than in September 2014. Manufacturers of explosives increased purchases of toluene in September by 8% over August 8% to 1,140 tons. At the same time paint manufacturers reduced purchases by 13% to 2,800 tons and manufacturers of lubricants and additives reduced purchases more than four times, to 510 tons. From January to September 2015 domestic shipments of toluene totalled 100,670 tons, 8% down on 2014.

#### Russian phenol, Jan-Sep 2015

Russian phenol domestic sales amounted to 10,200 tons in September, 1% more than in August. The largest supplier in September was Novokuibyshevsk Petrochemical Company which shipped 5,200 tons to the domestic market, or 51% of the market. Kazanorgsintez reduced shipments by 10% to 1,300 tons, whilst Ufaorgsintez reduced shipments by 3% to 3,800

tons. Sales totalled 71,700 tons in the first three quarters in 2015, against 85,500 tons in the same period in 2014.

Russian Phenol Production (unit-kilo tons)		
Producer	Jan-Sep 15	Jan-Sep 14
Ufaorgsintez	64.4	54.3
Kazanorgsintez	46.8	51.2
SANORS	55.6	64.0
Omsk Kaucuk	0.0	10.7
Total	160.1	180.3

Regarding domestic sales in September, 77% of sales (7,900 tons) went to consumers to phenol-formaldehyde manufacturers, 7% down on August. Another 10% of shipments went to Kuibyshevazot (1,000 tons) and Sterlitamak Petrochemical Plant (1,000 tons). Nizhnekamskneftekhim bought about 170 tons of phenol for alkylphenol production.

Phenol imports from Borealis amounted to 1,100 tons in September, 20% higher than August. The main consumer of Finnish phenol was Astatine which took 630 tons and the remainder was taken by Shchekinoazot and the Sverdlov plant. Phenol imports totalled 2,600 tons in January to September against 2,100 tons in the same period last year.

Omsk Kaucuk has been unable to restart the phenol-acetone plant due complications in the repairs and finance. The company estimates it needs around 1.8 billion roubles to renovate the damaged phenol-acetone plant, which would in addition to repairing the damages caused by the accident in early March 2014 would also help to increase capacity two-fold. Securing the loans to undertake the project has thus far proved not possible, a picture unlikely to change in the near term.

# Synthetic Rubber

Russian Synthetic Rubber Exports Jan-Aug 2015		
Country	Vol (kilo tons)	\$million
Belarus	20.5	29.0
Belgium	10.8	15.6
Brazil	39.6	63.5
Canada	15.4	23.2
China	68.0	95.3
Czech Republic	18.9	30.8
Germany	17.0	23.1
Hungary	49.0	89.2
India	58.1	85.9
Japan	25.1	43.3
Latvia	8.8	13.8
Lithuania	8.8	13.1
Poland	85.2	121.4
Romania	26.4	36.9
Serbia	9.0	12.6
Slovakia	20.6	33.9
South Korea	8.9	13.0
Taiwan	13.6	15.7
Turkey	39.3	39.3
Ukraine	10.1	13.5
USA	35.1	55.3
Others	54.7	92.7
Total	643.0	960.0

# Rosneft, Pirelli, & Synthos-feasibility study

Rosneft, Pirelli and Synthos have signed a Memorandum of Understanding (MOU) for the approval of the results of the feasibility study and future cooperation in the construction of the synthetic rubber plant at Nakhodka in the Russian Far East.

The document includes plant conceptual engineering designs and operational requirements, market studies, capital investments and operating costs estimates within the original scope of work agreed in the Memorandum signed in April 2015.

As a result of the feasibility study recommendations, the parties are committed to continuing joint work on the project. The aim is to establish a synthetic rubber jv using the raw materials produced by the Eastern Petrochemical Company (VNKH) to be constructed at Nakhodka. Pirelli may become the key off take customer of synthetic rubber. Potential plant capacities will be decided after market studies have been undertaken.

#### SIBUR rubber plant outages

Togliattikaucuk (part of SIBUR Holding) fully resumed production on 12 October after the incident on 14 September. The accident resulted in one fatality. Voronezhsintezkaucuk completed an eight day shutdown at the end of September.

During the repair works replacement of various heat exchange equipment was undertaken, in addition to the reconstruction of the fifth production line for degassing polybutadiene rubber. Two new pieces of equipment were also installed in the

production of TEP-50. Voronezhsintezkaucuk possesses a total capacity for thermoplastic elastomers of 85,000 tpa and styrene-butadiene rubber of 30,000 tpa.

SIBUR-Synthetic Rubber Production (unit-kilo tons)		
	Jan-Jun 15	Jan-Jun 14
Commodity Rubber	141.8	112.1
Speciality Rubber	50.6	43.6
TEP (elastomers)	29.0	28.1
3rd part purchases	0.0	0.4
Total	221.4	184.2
SIBUR-Synthetic Rubber Domestic Sales (unit-kilo tons)		
	Jan-Jun 15	Jan-Jun 14
Commodity Rubber	46.4	45.4
Speciality Rubber	4.6	5.8
TEP (elastomers)	13.8	12.1
Total	64.8	63.3
SIBUR-Synthetic Rubber Export Sales (unit-kilo tons)		
	Jan-Jun 15	Jan-Jun 14
Commodity Rubber	86.0	65.0
Speciality Rubber	44.8	40.7
TEP (elastomers)	16.5	9.3
Total	147.3	115.0

#### SIBUR synthetic rubber, Jan-Jun 2015

In the first half of 2015, SIBUR's revenue from synthetic rubber sales increased by 29.2% to 17.426 billion roubles from 13.488 billion roubles in the first half of 2014 benefiting from growth in commodity rubbers. SIBUR's production of synthetic rubber increased by 20.4% to 221,400 tons, and sales for increased by 19.2%, amounting to 212,500 tons.

Synthetic rubber results were largely attributable to higher capacity load on collapsed feedstock pricing and Russian rouble depreciation. This was despite low international market prices across most synthetic rubber grades. In the first six months of 2015, domestic sales accounted for 31.0% of SIBUR's rubber revenues, compared against 69% for exports.

# **Commodity Rubbers**

In the first half of 2015, SIBUR's revenue from sales of commodity rubbers increased by 29.2% to 10.158 billion roubles from 7.861 billion roubles in 2014 on a 20.0% increase in sales volumes and a 7.7% increase in average prices.

Production of commodity rubbers increased 26.4% in the first half of 2015 to 141,800 tons,

helped by advantageous feedstock prices. The average price for commodity rubbers largely followed the negative dynamics in European and Asian market prices that was fully mitigated by the Russian rouble



depreciation. In the first six months of 2015, domestic sales accounted for 34.9% of total commodity rubber revenue, while 65.1% was attributable to export sales.

#### Specialty Rubbers & Elastomers

In the first half of 2015, SIBUR's revenue from sales of specialty rubbers increased by 21.2% to 4.600 billion roubles from 3.796 billion roubles in 2014 on a 13.4% increase in average prices and a 6.8% increase in sales volumes.

The increase in average prices for specialty rubbers was attributable to Russian rouble depreciation that fully offset the declining prices on Asian markets. Growth in specialty rubbers sales volumes was a result of higher butyl rubber production volumes due to shorter planned maintenance shutdowns than in 2014, while SIBUR also increased NBR production at Krasnoyarsk. In the first six months of 2015, domestic sales accounted for 11.0% of total specialty rubbers revenue, while 89.0% was attributable to export sales.

The increase in sales of thermoplastic elastomers from Voronezhsintezkaucuk in the first half of 2015 was based mainly on inventory sales as production was very similar to last year. In the first six months of 2015, domestic sales accounted for 50.6% of total thermoplastic elastomers revenue, while 49.4% was attributable to export sales.

Russian Tyre Production (unit-mil pieces)		
Product	Jan-Sep 15	Jan-Sep 14
Car Tyres	27.8	25.8
Lorry tyres	4.8	4.9
Agricultural tyres	1.9	1.6
Total	34.5	32.3

# Russian tyre market, Jan-Sep 2015

Tyre production in Russia increased slightly in the first three quarters in 2015 despite weak domestic demand. As car manufacturers have been losing in the Russian market, some tyre manufacturers have been able to make better profits. The devaluation of the rouble has made exports

more profitable and companies such as Nizhnekamskshina have been able to ship tyres to Europe compensating for falls in the domestic market.

Russian Chemical Commodity Exports				
	Jan-Aug 15	Jan-Aug 14	Jan-Aug 15	Jan-Aug 14
Product	Kilo tons	\$Mil	Kilo tons	\$Mil
Ammonia	2,285	900	2,436	1,002
Methanol	810	225	1,077	428
Nitrogen Fertilisers	6,978	1,679	8,086	2,169
Potash	8,303	2,225	6,502	1,677
Mixed Fertilisers	5,979	2,199	5,683	2,041
Synthetic Rubber	643	960	559	1,239

In the first three quarters in 2015 tyre manufacturers in Russia have faced increasing production costs as the price of the main raw materials including isoprene rubber SKI-3. natural rubber, textile cord, etc. are tied to the dollar. Some manufacturers have managed to contain the increase in costs by number reducina the Also beneficial to intermediaries. manufacturers has been the decline

in tyre imports from traditional sources such as China, South Korea and Japan, due mainly to the fall in the rouble's value, allowing Russian tyre manufacturers to reclaim parts of the domestic market irrespective of weak demand.

# **Methanol & fertilisers**

Russian Methanol Domestic Sales by Producer				
(un	(unit-kilo tons)			
Supplier	Jan-Sep 15	Jan-Sep 14		
Azot Nevinnomyssk	14.8	0.0		
Azot Novomoskovsk	88.0	18.6		
Metafrax	257.3	86.2		
Sibmetakhim	372.2	278.0		
Togliattiazot	313.5	282.4		
Shchekinoazot	24.1	318.7		
Ammoni	23.0	0.0		
Others	25.3	16.1		
Total	1118.1	1000.0		

#### Russian methanol, Jan-Sep 2015

Methanol sales on the domestic market amounted to 120,500 tons in September, 5% down on August. Metafrax and Sibmetakhim were engaged in planned shutdowns, affecting supply, whilst Shchekinoazot showed the largest increase of 90% over August to 4,400 tons. Azot at Novomoskovsk increased domestic sales by 32% in September to 11,700 tons. Metafrax reduced sales by 33% to 10,800 tons, whilst other falls were recorded by Tomet, Ammoni at Mendeleevsk and Sibmetakhim.

MTBE consumers accounted for 36% of purchases in September, whilst smaller volume fell to domestic gas companies and enterprises for the production of

formaldehyde and its derivatives. Russian producers of rubber purchased 8,000 tons of methanol in September, 30% down on August, and another 9,000 tons was purchased by manufacturers of oils and additives which was 35% up on August. Domestic sales totalled 1.118 million tons in the first three quarters in 2015 against 1.0 million tons in 2014.

SIBUR Methanol Purchases by Plant (unit-kilo tons)		
Company	Jan-Jun 15	Jan-Jun 14
Togliattikaucuk	50.9	50.8
Uralorgsintez	31.0	30.6
SIBUR-Khimprom	7.8	6.2
Tobolsk-Neftekhim	22.1	26.0
Total	111.8	113.6

For the period January to September 2015 Russian methanol production totalled 2.558 million tons against 2.558 million tons against 2.636 million tons in the same period last year.

Metafrax restarted production in October after its maintenance shutdown that started in August, whilst Sibmetakhim also restarted in October after a four week shutdown. The launch of new production unit at Mendeleevsk has added a new player to the market, but production is relatively small. Production at the new Mendeleevsk plant in Russia started in

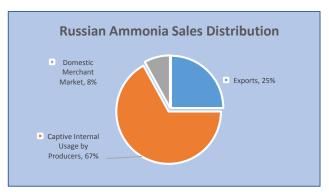
August, most of which was sold on the domestic market. The complex produces ammonia, methanol and urea and can consume up to 1 billion cubic metres of natural gas per annum.

#### Russian methanol consumption, Jan-Sep 2015

Domestic sales of methanol have increased this year partly due to more advantageous pricing for producers compared to exports, and also the growth in derivative production such as MTBE and formaldehyde. Consumers have been faced by higher costs for methanol this year, SIBUR estimated a rise of 35.4% in the

first six months in its purchases for its main subsidiaries Uralorgsintez and Tobolsk-Neftekhim. The largest consuming individual plant in Russia is Nizhnekamskneftekhim which accounted for 16% of total purchases in the first three quarters in 2015. The only consumer not engaged in MTBE/rubber production is Uralkhimplast at Nizhniy Tagil which produces urea-formaldehyde resins.

Russian Methanol Consumption by Consumer (unit-kilo tons)		
Consumer	Jan-Sep 15	Jan-Sep 14
Nizhnekamskneftekhim	183.4	179.3
Togliattikaucuk	77.1	76.0
Uralorgsintez	48.9	49.5
SIBUR-Khimprom	10.0	9.1
Tobolsk-Neftekhim	31.8	37.0
Ektos-Volga	36.3	35.2
Omsk Kaucuk	68.1	51.1
Novokuibyshevsk NPZ	35.4	37.2
Uralkhimplast	17.8	19.6
Slavneft-Yanos	14.4	7.2
Others	594.8	518.6
Total	1118.0	1019.9



#### Russian methanol plant technical developments

Uralkhimmash has delivered to Shchekinoazot a large amount of spherical tanks for storing liquefied petroleum gas and chemical products. The latest batch of tanks shipped to Shchekinoazot are in support of the methanol and ammonia project, Next year Shchekinoazot will undertake major repairs on the M-450 methanol plant in addition to installing equipment for the new project.

Metafrax has identified several projects for the main current and future investment projects in 2020. The development plans are aimed at meeting European environmental requirements and producing products which the company can use for further processing.

A main focus of the company is to increase capacity for

methanol to 3,375 tons per day from 3,000 tons per day at present. This can be achieved through changes to the composition of the gas, and the project should be completed by the end of 2017. Investment in the project comprises more than 2 billion roubles. The project will reduce the rate of natural gas consumption per ton of methanol. By 2017, Metafrax plans to build a new formaldehyde plant of 55% with a capacity of 90,000 tpa. This will culminate in the closure of the old plant for 55% formaldehyde.

The company is also considering the issue of construction of the plant for the production of paraformaldehyde with a capacity of 30,000 tpa. This would exceed the Russian market for paraformaldehyde which is currently rated at 13,000 tpa. In 2014 Metafrax abandoned its project to construct a urea plant, but is now reconsidering the project involving 1,400 tons per



day. This also includes a project for melamine production with a capacity of 40,000 tpa. This project is estimated in cost at around €500 million.

# Togliattiazot-new terminal at Taman

Togliattiazot has presented a project for a transhipment complex of ammonia and urea at the Taman port in the Krasnodar region. The transhipment complex is being designed with a capacity of 5 million tpa, broken down into 2 million tpa for ammonia and 3 million tpa for urea. The infrastructure of the transhipment complex will be designed to receive ships with a deadweight up to 50,000 tons, to possess an onshore terminal, including facilities for transhipment of ammonia and bulk cargo, as

well as a number of auxiliary facilities. The investment project for the construction of cargo complex to be undertaken without the involvement of budget or government funds. The total investment in the project will amount to more than \$300 million. The first stage of the terminal is scheduled for 2017, and commissioning of the second is scheduled for 2020.

# **Organic Chemicals**

Russian Butanol Domestic Sales (unit-kilo tons)		
Producer	Jan-Sep 15	Jan-Sep 14
Gazprom n Salavat	19.7	20.5
SIBUR-Khimprom	25.5	26.6
Angarsk Polymer Plant	1.3	1.9
Azot Nevinnomyssk	3.1	2.1
Others	4.1	1.8
Total	53.6	52.8

# Russian butanol domestic sales, Jan-Sep 2015

Butanol sales on the Russian domestic market amounted to 7,460 tons in September, 17% more than in August but 2% down on September 2014. The proportion of n-butanol in the gross sales volume in September of 2015 was 71% and the isobutanol 29%.

SIBUR-Khimprom shipped 4,390 tons in September, Gazprom neftekhim Salavat 2,130 tons, Angarsk Petrochemical 590 tons and Azot Nevinnomyssk 360 tons.

Sales on the domestic market totalled 53,600 tons in the first three quarters in 2015, against 52,800 tons in the same period in 2014. The proportion of n-butanol in total deliveries in January to September was 77%, and isobutanol 23%.

Regarding buyers, Akrilat at Dzerzhinsk purchased 2,390 tons in September which was 43% higher than August. Dmitrievsky Chemical Plant, by contrast, reduced purchases in September by 45% against August to 1,580 tons. Other major consumers of butanols in September 2015 included the Plant of Synthetic Alcohol at Orsk which took 860 tons, and Volzhskiy Orgsintez which took.650 tons.

SIBUR-Acrylate Ester Sales (unit-kilo tons)		
Jan-Jun 15 Jan-Jun 14		
Domestic	13.2	11.0
Export	11.8	11.8
Total	25.0	22.8

# Russian butanol exports, Jan-Sep 2015

Russian butanol exports rose to 8,060 tons in September against 980 tons in August and 11,610 tons in September 2014. The proportion of normal butanol in total Russian exports in September comprised 81%.

Gazprom neftekhim Salavat shipped 5,390 tons in September,

Angarsk Petrochemical Company 1,530 tons, SIBUR-Khimprom 660 tons and Azot Nevinnomyssk 480 tons. China accounted for 50% of Russian exports in September, followed by Poland with 21%, and Finland 19%. From January to September 2015, total shipments of butanols from Russia totalled 94,520 tons which was 18% up on 2014.

Russian N-butanol Exports (unit-kilo tons)			
Producer	Jan-Sep 15	Jan-Sep 14	
Gazprom n Salavat	36.7	17.7	
SIBUR-Khimprom	2.3	7.0	
Angarsk Petrochemical	20.2	18.2	
Total	59.2	42.8	
Russian Isobutanol Exports (unit-kilo tons)			
Producer	Jan-Sep 15	Jan-Sep 14	
Gazprom n Salavat	8.6	7.0	
SIBUR-Khimprom	10.6	15.1	
Angarsk Petrochemical	10.2	12.4	
Total	29.4	34.5	

# Russian butanol production, Jan-Sep 2015

Russian butanol production totalled 176,000 tons in the first eight months in 2015, against 160,100 tons in the same period in 2014. Gazprom neftekhim Salavat remains the largest producer, increasing isobutanol production this year at the expense of normal butanol. The proportion of n-butanol in total Russian production for January to

September was 63%, and isobutanol 37%. Production data by plant is available on the Statistical Database at www.cirec.net.

SIBUR-oxo alcohol sales (unit-kilo tons)		
Jan-Jun 15 Jan-Jun 14		
Domestic	36.6	35.3
Export	40.8	35.3
Total	77.4	70.6

# Russian plasticizer alcohols, Jan-Sep 2015

DOP exports from Russia in September amounted to 54 tons against 43 tons in August and 105 tons in September 2014. . Kamteks-Khimprom exported 361 tons to Uzbekistan in September. For the first nine months exports totalled 1,210 tons.

Exports of phthalic anhydride amounted to 4,100 tons in September,

against 1,730 tons in August and 3,970 tons in September 2015. India was the main destination in September, accounting for 40% of shipments, followed by Ukraine (15%), Poland (12%), Uzbekistan (10%) and Finland (10%). The sole Russian exporter of phthalic anhydride Kamteks-Khimprom shipped 34,050 tons, 35% lower than the same period in 2014.

#### Russian paints sector, Jan-Sep 2015

Russian paint manufacturers have increased domestic market share this year as imports have declined, even if total production declined in the first three quarters. In 2014, 42% of all paints bought in Russia consisted of imports but in 2015 that level has now dropped below 40% in 2015. The main volumes imported from abroad coatings used in high-tech industries: shipbuilding, aircraft, storage and transport of oil and gas, the furniture industry. Imports have declined due more to the value of the rouble than the so-called import substitution strategy encouraged by the government.

Russian Paint Production (unit-kilo tons)		
Sector	Jan-Sep 15	Jan-Sep 14
Paint Materials on polymers	654.2	714.8
Other Paints	251.0	302.9
Total	905.2	1017.7

The size of the Russian paint market has not seen much overall change in 2015, although the composition of consumers has shifted more towards the military sector rather than the industrial sector. The rise in government investment in tanks, aircraft and naval vessels in 2015 has stimulated growth for paints, rising between 5 to 15% in the first three quarters in 2015.

The increase in demand from the defence sector has however, not compensated for the reduction of industrial production. The economic consequences of the sanctions imposed against Russia and low oil prices have impacted heavily on Russian industrial production, estimated to have dropped by 4.8% overall in the first three quarters this year. The automotive sector has been particularly weakened for paint demand, with large falls recorded in the production of tractors, trucks and cars.

# **Other Products**

#### KZSK-Silicon new plant to start in April 2016

KZSK-Silicon (daughter of Kazan Synthetic Rubber Plant KZSK) aims to start its new silicon plant in April 2016. Around three quarters of the equipment has been already delivered, after construction was started in June 2014. The project cost is estimated at 9.8 billion roubles, including 7.8 billion roubles provided by credit funds from Vnesheconombank. The plant capacity is being designed to produce 40,000 tpa with the possibility of increasing to 100,000 tpa. It is expected that after reaching full production capacity annual revenues in current prices are estimated at around 5.9 billion roubles.

Up to 20% of the production of the new plant will be used for the production of KZSK silicon materials. The Russian market demand for silicone monomer (methylchlorosilanes) is estimated at 50,000 tpa from a global total of around 4 million tpa. The project for the production of methylchlorosilane has entered the list of priority projects of the republic, which allows it to claim a number of preferences from the Republic of Tatarstan.

Methylchlorosilane is used as a chemical component in a large number of industries, from household chemicals and cosmetics to lubricants for rubber products, water-repellent components of drilling fluids, and various sealants.

# Russian maleic anhydride project-Alabuga

A Russian-German jv Kamatex between Russian company Pa-Rus and the German engineering company Chemieanlagenbau Chemnitz GmbH (CAC) is planning to construct a maleic anhydride plant in the Alabuga Special Economic Zone (SEZ) in Tatarstan.

Investment in the project is estimated by the organisers at 9.958 billion roubles. The aim is to produce both liquid and solid maleic anhydride, which could be used domestically and sent for export. The capacity of the plant has been designated at 40,000 tpa, with the option to rise to 60,000 tpa. Maleic anhydride is not currently produced in Russia, although it was previously produced at Novomoskovsk and Tambov. Domestic consumers rely mainly on solid product imports from China, Korea and Japan.

Current maleic consumption in Russia is estimated by 10,000 tpa, rising in excess of 10% per annum. Export activity would thus be required. Shipping maleic anhydride in liquid form is not viable so that would mean that the plant would have to produce either pellets or flake.

Butane would seem to be the most logical choice of feedstock, offering the better yield than benzene, but the

technology is yet to be decided. The aim is to replace imported maleic by 2018 through domestic production. The launch of the production of maleic anhydride is complicated by the need for expensive catalysts which are not produced domestically, largely offsetting the benefits from import substitution.

### **Uralkhim-KrioGaz**

Uralkhim and KrioGaz (a subsidiary of Cryogenmash) have signed an agreement on the construction and operation of new facilities for air separation at Kirovo-Chipetsky. Under the agreement, KrioGaz is to lease

22 years of land for the construction of an air separation station, which will provide nitrogen to the Kirov plant. The station is expected to start in September 2017 and the capacity for nitrogen gas will be about 5,000 cubic metres per hour. Construction of the facility will be conducted by Cryogenmash.

For Cryogenmash this is the seventh project to supply the production of technical gases on the principle of outsourcing. Cryogenmash is the largest company in Russia for production technology and air separation equipment, supply of technical gases and development of comprehensive decisions on processing of associated natural gas and LNG.

#### **Belarus**

Belarussian LDPE Market (unit-kilo tons)		
	Jan-J	un 15 Jan-Jun 14
Production	66	68
Export	47	43
Import	6	7
Market Balan	ce 24	32

# Polymir at Novopolotsk

Polymir produced 94,900 tons of LDPE at Novopolotsk in the first three quarters in 2015, 9% less than in 2014. The decline in output was due to longer outages required at the LDPE plant. Furthermore Polymir stopped polyethylene production on 21 September due to an accident, no injuries were reported.

Exports play an important role in Polymir's marketing due to the small size of the Belarussian market. At the end of 2014 Polymir introduced

two new types of polyethylene, 15303 and 17504, which increased the company's range of film grade products. Polymir was founded in 1968 and uses technology from Courtaulds, Asahi Chemical Co. Ltd, Kanematsu Gosho, SNIA BPD, etc.). LDPE capacity at Polymir is 130,000 tpa which was exceeded in 2014 when the company produced a total of 136,000 tons.

Mogilevkhimvolokno PTA Imports			
unit-kilo tons)			
Country	Jan-Aug 15	Jan-Aug 14	
Russia	2.4	11.9	
Poland	30.0	10.2	
Others	6.1	4.4	
Total	38.5	26.5	

# Mogilevkhimvolokno-new PET facilities

The modernisation of Mogilevkhimvolokno is being designed to master the production of innovative products with a view to increasing sales in the EU area. Updating production consists of two stages, the first of which is scheduled covering the period 2015-2017.

Mogilevkhimvolokno plans to invest in the modernisation programme during which it is expected to expand the production of polyester fibres

polyethylene fibres and production of technical yarns.

by 50,000 tpa in the first phase and 30,000 tpa in the second phase. The second phase of construction, which should begin in 2016, involves the commissioning in 2019 of the continuous polycondensation with direct spinning

Azot Grodno Production (unit-kilo tons)		
Product	Jan-Sep 15	Jan-Sep 14
Methanol	62.9	59.5
Caprolactam	94.1	93.5
Polyamide primary	70.3	66.8
Polyamide filled	6.8	8.0
Ammonia	875.2	800.5
Urea	837.7	760.4
Fertilisers	622.1	583.2
Fibres	21.2	30.2

# Belarussian polymer imports, Jan-Aug 2015

In the first eight months of 2015 deliveries of polypropylene to the Belarusian market increased by 0.6% compared to the same period in 2014 and totalled 53,700 tons. PVC imports declined by 24.5% in the first eight months to 19,200 tons. Imports of LDPE rose 3,000 tons in January to August 2015 to 36,000 tons whilst HDPE imports dropped 8,000 tons to 26,000 tons.

Azot Caprolactam Exports (unit-kilo tons)		
Country	Jan-Aug 15	Jan-Aug 14
Russia	0.0	0.2
Indonesia	3.1	1.0
Malaysia	0.4	0.0
China	6.8	7.8
Taiwan	8.8	15.7
Total	19.1	24.8

# Azot Grodno, Jan-Sep 2015

Azot at Grodno increased methanol production in the first three quarters in 2015 to 62,900 tons against 59,500 tons in the same period in 2014. Increases were also recorded for caprolactam and polyamide in primary form, but fibre production declined from 30,200 tons to 21,200 tons. Ammonia, urea and mineral fertiliser production all increased in the first three quarters this year. Belarus owns 99.97% of the shares in Azot and the company operates under the operational control of Belneftekhim. Investment is considered vital to replace existing worn-out facilities for the production of ammonia and

urea. condition. Azot is aiming to expand nitric acid capacity to 1190,000 tpa.

#### **Ukraine**

Ukrainian HDPE Imports (unit-kilo tons)		
Category	Jan-Sep 15	Jan-Sep 14
Film	33.4	35.4
Blow	10.0	12.8
Pipe	10.0	11.6
Injection	12.7	13.4
Other	1.2	0.1
Total	67.3	73.3

### Ukrainian polymer exports, Jan-Sep 2015

Ukrainian PVC imports amounted to 61,200 tons in the first nine in 2015, 31% down on the same period in 2014. Imports from the US fell from 53,000 tons in the first three quarters in 2014 to 25,000 tons in 2015.

Over the first three quarters of 2015 the Ukrainian market of polycarbonate declined by 29% compared to the same period last year and amounted to 2,000 tons. Throughout the year, a market that is totally dependent on imports continued to decline against the background of devaluation of national currency and low purchasing

power. The main importers are SABIC Innovative Plastics and Bayer MaterialScience (Now Covestro).

# Ukrainian titanium dioxide producers

Ukrainian State Enterprise OGHK has won the tender for the supply of ilmenite concentrate to Sumyhimprom. Cooperation with Sumyhimprom will allow Irshansky combine to sell almost half of the annual production of ilmenite concentrate.

Sumykhimprom's capacity for titanium dioxide consists of 45,000 tpa. To run at full capacity, the company needs to acquire about 150,000 tpa of ilmenite concentrate.

Regarding Crimean Titan, stocks of raw materials at the plant are running very low and the plant has stopped receiving raw materials due to the blockade of Crimea. The company will be forced to seek alternative raw materials than its traditional Ukrainian sources. Crimean Titan at Armyansk is the largest producer of titanium dioxide in East Europe. The blockade of Crimea began on 20 September started by the Crimean Tatars.

Polypropylene imports totalled 67,100 tons in the first three quarters in 2015, 20% down on 2014. The main decline was recorded in the import of homopolymers, which totalled 51,300 tons in January to September 2015 against 73,000 tons in the same period last year.

HDPE imports totalled 68,300 tons in the first three quarters, 7% down on 2014 when volumes totalled 73,300 tons. Film grade HDPE imports totalled 33,400 tons in January to September 2015, 6% down on 2014.

#### **Central Asia**

# Atyrau-paraxylene plant starts production

The Atyrau refinery produced its first batch of paraxylene on 2 October, at the same time marking seventy years since the complex was first created. The capacity of the crude oil processing will comprise 8.5-9 million tpa, the gas processing plant 12 billion cubic

metres per annum. The paraxylene plant has cost \$1.13 billion to construct with a capacity of 496,000 tpa. The complex was designed by Axens, and the licensors of catalytic reforming, extractive distillation, isomerization were OctanizingTM, MorphylaneR, Eluxyl, XyMax and TransPlus. In the initial phases of paraxylene production is to be exported.

### AzMeCo suspends gas purchases from Gazprom

Azerbaijani methanol plant AzMeCo suspended the purchase of gas from Gazprom in October after only one month's supply. The decrease in world prices for methanol has made it unprofitable to buy gas from Gazprom. Under what price conditions can the Azerbaijani side to resume the purchase have not been specified.

The agreement between Gazprom and AzMeCo was concluded on 11 September. It provided for the supply of gas in the amount of 2 billion cubic metres annually. Only 100 million metres was supplied to AzMeCo before the contract was cancelled. AzMeCo is trying to secure gas from the Ministry of Energy of Azerbaijan from the field Shah Deniz, despite the heavy focus on export activity.

The paraxylene production in October followed the first consignment of benzene in July, both important parts of creating a global petrochemical complex in Kazakhstan. Modernisation of the Atyrau complex was first initiated around a decade ago under Japanese companies, whilst the aromatics complex and latest phase of modernisation has been undertaken by Sinopec Engineering and Eximbank of China.

The new paraxylene plant is the largest in the territory of the former Soviet Union. The objective is now to progress into added value

products, particularly in view of the apparent peaking of Kazakh oil production. Questions that now need to be examined consist of derivative investments, especially for paraxylene where capacity of 496,000 tpa would be difficult to export in entirety. Kazakhstan Petrochemical Industries did examine the possibility of a jv with Mogilevkhimvolokno in 2013, but decided that it was not profitable.

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# Kazakh polymer imports, Jan-Aug 2015

In the first eight months of this year, imports of PVC in Kazakhstan fell by 29% and amounted to 32,900 tons. Imports have declined largely due to the cessation of re-export to Russia. HDPE imports increased 17% in the first eight months to 58,800 tons. The main increase in imports stemmed from local pipe manufacturers, accounting for 85% of inward shipments. Russian suppliers accounted for 73% of imports into Kazakhstan, with other sources coming from South Korea, Uzbekistan and Iran.

# Relevant Currencies

Czech crown. Kc. \$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 = 22.9 €1 = 24.9: Rus rouble. \$1 = 64.8 €1= 70.0

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