

### CIS Chemical and Petrochemical News

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Issue No 32

### RUSSIA

Russian Gas Prices Paid by Domestic Chemical Producers (\$ per thousand cubic metres, ex-VAT & transport)				
Company	Location	2012	2011	
Akron	Novgorod	104.2	97.1	
Azot	Novomoskovsk	101.8	83.9	
Azot	Nevinomyssk	109.6	101.5	
Fosagro	Cherepovets	93.9	97.5	
Kamteks-Khimprom	Perm	95.4	90.5	
Kaustik	Sterlitamak	121.1	83.9	
Kaustik	Volgograd	121.1	96.4	
NKNH	Nizhnekamsk	109.4	101.3	
Galopolymer	Perm	99.3	88.5	
GNS	Salavat	96.4	90.1	
Metafrax	Gubakha	85.8	80.1	
Orgsintez	Nizhniy Novgorod	133.2	122.7	
Polief	Blagoveschensk	105.6	96.3	
Promsintez	Chapayevsk	97.7	90.6	
Togliattiazot	Togliatti	94.2	102.8	
Sterlitamak PC	Sterlitamak	107.2	87.4	
Volzhskiy Orgsintez	Volzhskiy	126.0	118.3	

### Russian natural gas prices

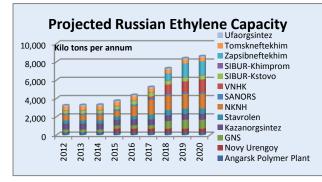
In June this year Vladimir Putin announced a decision to limit the growth of gas prices in Russia to levels of inflation. Inflation rates in Russia are currently in the range of 6% and this rate is mirrored in the increases in gas prices faced by domestic chemical producers. Officially increases to wholesale industrial consumers amounted to 15% from 1 April this year, but under the new guidelines from the Kremlin the prices of gas will only be allowed to rise by 5-6% in the next couple of years.

The cost of gas is most important for fertiliser and methanol producers, whilst representing lower significance for the petrochemical and organic chemical producers.

Thus despite WTO pressures and Gazprom's efforts to liberalise prices, the cost of Russian domestic gas is likely to remain well below European levels for the foreseeable future. Gas

prices for the major Russian chemical companies increased in 2012 against 2011, but still remain well below numbers paid by competitors in Europe. Partly because of the significant difference between Russian domestic gas prices and European gas prices, the EU is considering a renewal of anti-dumping duties on ammonium nitrate exports from Russia. The duties were introduced in July 2008, and the EU has now stated that EU producers may need longer protection.

### Russian ethylene project update



### Russian ethylene capacity changes

Russian ethylene projects have tended to multiply in the past few years and whilst some proposals remain in the concept stage there are others making good progress. The government view is that considerable sums need to be invested to avert the dependency on imports of higher added value chemicals and plastics, but this strategy according to SIBUR needs to be endorsed carefully. By building capacity without investment into the infrastructure and without a strategy for marketing could lead to plants being

unable to survive economically. There are concerns that some project ideas are merely duplicating each other, particularly in the Volga region. Rather than constructing a series of large-scale crackers competing against each other it could be a more viable option to invest in expanding the ethylene pipeline in the Volga region.

The three one million tpa projects at Nizhnekamsk, Tobolsk and Primorsk Krai (Nakhodka) all seem set for completion in 2017-2018, whilst another project at Salavat is expected to take longer to undertake. SIBUR-Kstovo is well advanced in its ethylene expansion, principally to serve the new RusVinyl jv, whilst the Novy Urengoy project appears to be gradually approaching conclusion even if Gazprom is unable to specify when. LUKoil is working very slowly on its expansion at Budyennovsk, but expects to complete the project by 2018.

Based on projects already in the early construction stages total ethylene capacity in Russia is projected to rise to 8.6 million tpa by 2020 against 3.3 million tpa in 2013, thus representing an increase of 2.6 times. The forecast could be further expanded by taking other projects into the equation that are best described as being in the formative stages. Holding groups Bashneft and SANORS have both indicated intentions to build one million tpa crackers, of which SANORS appears the most likely. Gazprom has shown interest in a number of potential projects, including an expansion at Novy Urengoy, a new plant at Astrakhan and another possible complex at Belogorsk in the Russian Far East. Sayanskkhimplast is another area and company where ethylene production could be developed, based on the Kovytka and Chayanda deposits.

In all of the prospective projects the same questions arise including finance, feedstock access, market proximity and infrastructure. Even if the concept plans for new crackers tend to be shelved Russian ethylene capacity is set to expand several-fold based on the projects already under construction, or where foundations have already been laid. Some of the main projects and current issues are described below. A full list of current capacities and production for ethylene and other petrochemicals is available on the Statistical Database at www.cirec.net.

Million Ton Ethylene Crackers under Construction					
Company	Location	Main Feedstock Source	Date of Full Completion		
VNHK (Rosneft)	Nakhodka, Primorsk	Naphtha	2017-2018		
Zapsibneftekhim (SIBUR)	Tobolsk, Tyumen	Ethane	2017		
Nizhnekamskneftekhim	Nizhnekamsk, Tatarstan	Naphtha	2017		
Gazprom Neftekhim Salavat	Salavat, Bashkortostan	Naphtha/refinery gases/ethane	2022		
Mic	Mid-sized ethylene projects under Construction				
Company	Location	Main Feedstock Source	Date of Full Completion		
Novy Urengoy Gas Chemical Complex	Novy Urengoy, Yamal	Ethane	2015		
Stavrolen	Budyennovsk, North Caucasus	Ethane	2019		
SIBUR-Kstovo	Kstovo, Upper Volga	Naphtha/LPGs	2014		
Et	hylene Crackers in Planning	/Concept Stage			
Company	Location	Main Feedstock Source	Date of Full Completion		
SANORS	Novokuibyshevsk, Samara	Naphtha/refinery gases	2019-2020		
United Petrochemical Company (Bashneft)	Ufa, Bashkortostan	Naphtha	2019-2020		
Novy Urengoy Gas Chemical Complex	Novy Urengoy, Yamal	Ethane	2020		
Gazprom	Astrakhan, Southern Russia	Ethane	2020		

### Nizhnekamskneftekhim-petrochemical projects

Project foundations are already underway for the new one million ton cracker at Nizhnekamsk and Nizhnekamskneftekhim expects to finalise the project outline later this year. The new cracker will be constructed in parallel with polyolefin plants, including 600,000 tpa of polyethylene and 400,000 tpa of polypropylene. These plants will add to the existing capacities at Nizhnekamsk for polyethylene (230,000 tpa) and polypropylene (190,000 tpa). The new cracker is scheduled for completion in 2016-2017, and the construction cost is estimated in the range of \$3 billion.

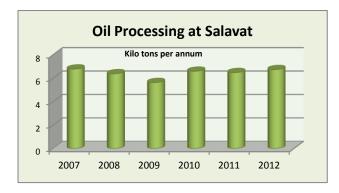
Nizhnekamskneftekhim expects to receive the basic design (FEED) for the new complex by August or September this year, after which the aim will be to complete the financing package for the project. For the production of polyolefins, project documentation could be ready by May 2014. As a result of these investments Nizhnekamskneftekhim has forecast to double turnover by 2020. Revenues for the company could reach 230 billion roubles by 2020, generating a net profit in the range of 32 billion roubles.

### SIBUR-ZapSib-2

In the second half of 2013 SIBUR plans to make a final investment decision on the ZapSib-2 project at Tobolsk after completion of the FEED stage. ZapSib-2 is a greenfield construction of an integrated light feed cracker/basic polymers production complex. It is projected to operate a steam cracker with a total ethylene capacity of 1.5 million tpa (technology provided by Linde), four polyethylene production units with a total capacity of 1.5 million tpa (technology provided by INEOS), and one polypropylene production unit with a capacity of 500,000 tpa (technology provided by LyondellBasell).

As part of the development of petrochemical facilities at Tobolsk large-scale infrastructural investments are being undertaken by SIBUR. The expansion of the railway infrastructure at the Denisovka station serving Tobolsk has recently received approval from the Environmental Agency, and this is aimed at increasing rail shipments initially

from the Tobolsk-Polymer polypropylene complex. SIBUR has decided to invest in the rail infrastructure, as well as building new facilities for its logistics subsidiary SIBUR-Trans at Tobolsk. Currently, rail services are performed on a single-track line between the Denisovka and Tobolsk stations. The project involves plans to construct 24 km of track and equipment between the two stations, increasing freight volumes considerably.



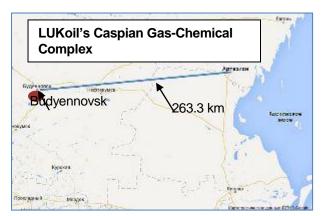
### **Gazprom Neftekhim Salavat-olefin expansion**

Gazprom Neftekhim Salavat's approach to the olefin expansion and construction of a one million tpa cracker is more step by step than most other companies. An expansion of the current cracker to 380,000 tpa is close to completion, but the bigger expansion to over 1 million tpa may not be finished some years.

A decision on the million ton cracker is expected by the end of the year after completing the pre-FEED construction of pyrolysis. The current cracker

probably uses the widest range of raw materials than of any of the Russian crackers in the Volga-Urals region. Gazprom Neftekhim Salavat wants a full evaluation of the alternative feedstocks including ethane, LPG and naphtha before making decisions on furnaces, etc.

The cost of ethylene produced using naphtha is roughly 40% more expensive than ethane, but at the same yielding propylene which is vital for oxo-alcohol production at Salavat. .Gazprom Neftekhim Salavat could also increase refinery capacity from 10 to 16 million tpa in order to utilise oil and condensate from the Surgut area. Gazprom Neftekhim Salavat already receives feedstocks from Gazprom's processing plants at Orenburg and Astrakhan.



### **LUKoil-Budyennovsk pipeline**

LUKoil's investment into a new gas-chemical complex at Budyennovsk has been in planning and organisation for some time. The size of the new cracker at Stavrolen was revised downwards from its original 650,000 tpa to 325,000 tpa and thus this project is not quite as important as other projects.

LUKoil has recently announced a tender for the construction of the onshore section of the pipeline from fields in the North Caspian Sea to the chemical complex under construction at Budyennovsk. The planned capacity of the pipeline is 8 billion cubic metres of gas per annum and the total length of the pipeline, which will

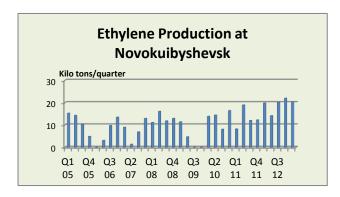
run through the territory of Kalmykia and Stavropol Territory, comprises 263.3 km. It is expected that the first phase of GPP capacity of 2 billion m3 will be put into operation in 2015. Associated gas will be transported from the fields of LUKoil in the Northern Caspian Sea for processing into polyethylene and polypropylene at the gaschemical complex at Stavrolen.

Applications for participation in the tender will be accepted until 12 July. The deadline for submission of tender offers is 13 August. The opening of the technical part of bids will take place on 16 August, and tender bids 2 September. LUKoil has previously reported that the capacity under construction of gas chemical complex on the basis of Stavrolen could be up to 8.7 billion cubic metres of associated gas per annum. First of all the capacity of 2.2 billion cubic metres is planned for start-up in 2015, and the second stage (up to 6.5 billion cubic metres) is planned in 2021.

### Rosneft-SANORS new petrochemical complex planned

Rosneft and SANORS have announced a joint investment project to build a large-Novokuibyshevsk polymer complex at Novokuibyshevsk. The project is planned for the period 2013 to 2020, with investment exceeding 290 billion roubles. It is assumed that the share of Rosneft in the joint venture will be 50%. It is planned that the complex will be focused on import substitution and meet growing domestic demand in key polymers and other chemical products, competitive on the parameters of quality and technology.

The new production will create over 6,700 new jobs during the construction phase and 8,000 jobs at the manufacturing stage. On 21 June Rosneft and SANORS signed an agreement on the principal terms of the joint venture on the basis of gas processing assets of Rosneft and assets SANORS located in the Orenburg and Samara regions. The parties plan to work out the details of the joint venture questions and sign legally binding documents by the end of 2013.



It was also reported that the plan is SANORS is planning a new pyrolysis unit for ethylene with a capacity of 1 million tpa and production of polymers based on it. Other plans include the construction of a primary crude oil processing capacity of 5 million tpa.

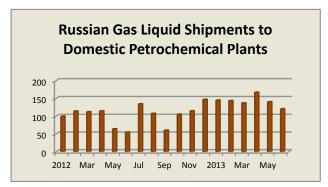
Current production levels of ethylene at Novokuibyshevsk are modest, only SIBUR-Khimprom in Russia produces less output. Production has stabilised and even risen slightly since SANORS took over Neftekhimya from Renova-Orgsintez.

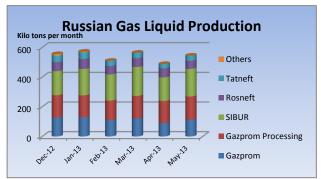
The project to create the production of ethylene and polyolefins to be implemented in two phases over 10 years. SANORS also sees prospects in the production of polyurethanes, emulsion PVC, ABS plastics, whereby a significant part of consumption which in Russia is provided by imports.

### **Feedstocks & Petrochemical Producer News**

### Russian petrochemical feedstocks, Jan-Jun 2013

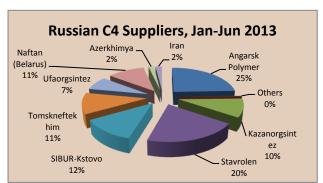
Russian gas liquid producers reduced the volume of supply by rail to the domestic market by 15% to 287.950 tons, partly influenced by the planned shutdown at the Lokosovsky gas processing plant in the second half of the month. Volumes of gas liquids from Tobolsk-Neftekhim amounted to 15,870 tons of which 14,000 tons went to SIBUR and 1,870 tons was delivered to Stavrolen.





Petrochemical producers purchased 120,780 tons of LPGs in June, 14% less than in May. Nizhnekamskneftekhim reduced purchases by 27% to 24,660 tons, whilst Gazprom Neftekhim Salavat did not purchase gas liquids in June due to the change in the composition of pyrolysis feedstock.

However, Tomskneftekhim, Stavrolen and Ufaorgsintez increased consumption of gas liquids to 42,610 million tons (+17%), 26,120 tons (+4%) and 10,250 tons (+54%), respectively. In the first half of the 2013 a total of 1.92



million tons of gas liquids were delivered to the Russian market 31% more than the same period in 2012. Petrochemical companies consumed 854,800 tons of gas liquids which was 52% over 2012. Although naphtha remains the dominant feedstock in Russian petrochemical production there has been a gradual shift towards gas liquids in the past year due to cost.

Russian C4 producers reduced the supply of the product to the domestic market by 19% in June to 21,400 tons. SIBUR-Kstovo underwent maintenance,

thus reducing C4 shipments by 5.9 times against May to 736 tons. In addition, the Angarsk Polymer Plant

reduced C4 shipments by 30% to 4,100 tons, and Ufaorgsintez - by 19% to 1,700 tons. Kazanorgsintez increased shipments by 2.4 times up to 3,000 tons. In the first six months in 2013 shipments of C4s to the domestic market totalled 164,300 tons, i.e. 29% more than in 2012. Togliattikaucuk accounted for 49% of total purchases and Nizhnekamskneftekhim 34%.

Isobutane sales on the domestic market totalled 187,840 tons in the first half of 2013, 6% down on the same period last year. The major consumers of isobutane consist of MTBE producers, whilst the main suppliers include Tobolsk-Neftekhim, Novokuibyshevsk Petrochemical Company and Kirishinefteorgsintez.

### Russian Naphtha Sales (unit-kilo tons) Jan-Jun 13 Jan-Jun 12 Fuel 521.0 433.2 Petrochemical 503.8 306.9 Exports 5362.6 4700.7

### Russian naphtha, Jan-Jun 2013

Naphtha exports from Russia amounted to 5.3 million tons in the first half of this year, 12% up on 2012. Increased production at the refineries Antipinsk, Ryazan and Nizhnekamsk (Taneko) has provided more availability for export.

Exports 5362.6 4700.7 Domestic sales of naphtha amounted to 1.030 million tons in the first half of 2013, 36% more than last year. Shipments are divided between the fuel sector and those companies in the petrochemical sector which buy naphtha on the open market. The main reason for the increased purchases from petrochemical plants this year has been the resumed activity by Stavrolen. Although Stavrolen predominantly uses naphtha occasionally it uses gas liquids, as was the case in June. Other merchant buyers of naphtha include SIBUR-Kstovo and Tomskneftekhim.

Russian Propylene Domestic Purchases				
(unit-kilo tons)				
Company	Q1 13	Q2 13		
Saratovorgsintez	44.0	40.6		
Volzhskiy Orgsintez	2.9	1.3		
Akrilat	5.3	4.5		
SIBUR-Khimprom	17.4	12.1		
Tomskneftekhim	5.5	0.5		
Tobolsk-Polymer	0.0	4.1		
Nizhnekamskneftekhim	0.0	1.0		
Ufaorgsintez	5.9	2.0		
Gazprom Neftekhim Salavat	1.9	0.0		
Kazanorgsintez	1.0	1.1		
Samaraorgsintez	2.0	0.0		
Khimprom Kemerovo	0.5	0.0		

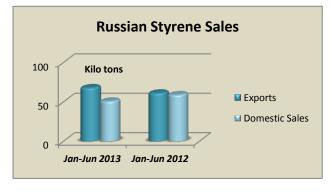
### Russian propylene, Jan-Jun 2013

Propylene sales from Russian companies on the domestic market totalled 18,000 tons in June, 42% less than in May. The main reason for lower monomer supply to the domestic market was reduced production by SIBUR-Kstovo as the result of maintenance work. Shipments dropped 12.2 times against May to 753 tons.

In addition, the shipment of propylene from the Angarsk Polymer Plant declined by 32% in June to 4,600 and from LUKoil-NNOS by 10% to 11,500 tons. In the first six months in 2013 Russian propylene producers shipped 162,100 tons to the domestic market which was 8% down on 2012.

Russian propylene exports totalled 18,500 tons in the first half of 2013, 24% up on last year. A combination of higher domestic production following the restart of the Stavrolen cracker and lower demand has allowed export activity to increase.

A total of 81,600 tons of propane-propylene fractions were sold on the domestic Russian market in the first half of 2013, which is virtually the same as in 2012. The largest consumers include Samaraorgsintez (29% of gross purchases), SIBUR-Khimprom (19%) and the Plant of Synthetic Alcohol Plant at Orsk (18%). Production processing propane-propylene fraction at Polyom daily yields more than 130 tons of propane. The gas has a purity of 96% and corresponds to the requirements of GOST and essentially free of unsaturated hydrocarbons.



### Russian styrene, Jan-Jun 2013

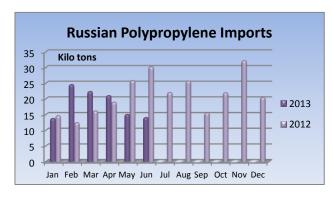
Russian producers of styrene reduced the supply to the domestic market by 20% in May to 7,500 tons. Plastik at Uzlovaya reduced shipments by 39% to 2,200 tons due to a lack of ethylbenzene.

The shortage of ethylbenzene resulted from the shutdown at SIBUR-Kstovo, which reduced the volumes of benzene to SIBUR-Khimprom which produces ethylbenzene. In addition, Gazprom Neftekhim Salavat sold 3,500 tons of styrene in June which was 7% less than in May. In the first half of

2013 Russian sales of styrene on the domestic market amounted to 50,900 tons, 16% down on the same period last year.

Russian companies exported 14,500 tons of styrene in June, practically the same in May. Gazprom Neftekhim Salavat reduced exports by 7% against May to 12,500 tons. In the first half of 2013 Russian styrene exports totalled 67,900 tons, 11% more than in 2012. The largest share of Russian monomer was delivered to Finland (54% of gross exports) and Turkey (22%).

### **Bulk Polymers**



### Russian polypropylene imports, Jan-Jun 2013

Imports of polypropylene in Russia in the first half-of 2013 declined by 18% against the same period last year. Imports in the first six months totalled 110,500 tons. Apart from higher production at Stavrolen in 2013, the start of the Omsk polypropylene plant has increased domestic availability. As a result, from April imports of polypropylene in Russia began to decline.

Production at Tobolsk is also in the start-up phase and could start in August. Thus the trend in declining levels of imports should continue in the second half of

the year, assuming no unexpected outages. In the first six months homopolymer imports declined although shipments of propylene copolymers rose.

South Korean Polymer Exports to Russia				
(unit-kilo tons)				
Product	Jan-Jun 13	Jan-Jun 12		
PET	25.04	37.65		
PVC	3.27	6.19		
Exp PS	11.34	12.20		
Polystyrene	7.58	10.92		
HDPE	38.08	37.93		
LDPE	19.33	16.29		
PP	8.65	10.25		
Polycarbonate	1.88	3.84		
ABS	11.99	12.67		

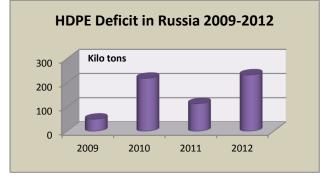
Market factors such as prices have also deterred domestic consumers in buying imported polypropylene. The high level of export prices in Turkmenistan led to the temporary cessation of the supply of raffia from May onwards. In 2012, the average amount of Turkmen polypropylene to the Russian market was 5,500 tons.

### Russian polyethylene imports, Jan-Jun 2013

Imports of polyethylene into Russia increased by 4% in the first half of 2013 up to 350,000 tons. Imports of LLDPE and ethylene vinyl acetate rose by 38% and 35%, respectively. HDPE imports declined slightly due indirectly to the restart of the Stavrolen cracker. Imports have tended to decline in the second quarter this year due to lower demand.

A number of outages are being undertaken over the summer period.

Gazprom Neftekhim Salavat stopped polyethylene production on 16 July for a 30 day shutdown. This stoppage included the units for 45,000 tpa of LDPE and 120,000 tpa of HDPE. Tomskneftekhim halted production on 18 July at its 240,000 tpa LDPE plant, whilst Angarsk Polymer Plant has started a shutdown its 76,000 tpa LDPE plant for about a month.



### Appeal to abolish Russian HDPE duties

The Russian Pipe Industry Development Fund has appealed to the Ministry of Industry to abolish import duties on HDPE. The case has been put forward due to the growth of consumption of pipes for the construction of oil and gas pipelines and the need to buy imported HDPE. According to Russian pipe manufacturers, domestic polyethylene does not meet modern requirements for corrosion-resistant coatings.

The total volume of HDPE imports into Russia for 2012 amounted to 408,000 tons, of which 56,000 tons

was purchased for the production of large diameter pipes. Consumption of polymer pipes is rising at rates of 10-15% per annum, and imports play an important role meeting the country's deficit, not only in volume but also quality. The Russian polyethylene pipe market was affected in 2012 by the outage at Stavrolen which lasted almost 10 months. Pipe grade polyethylene is produced at three companies including Kazanorgsintez (PE 100, PE 80), Stavrolen (PE 80) and Nizhnekamskneftekhim (PE 100). Total capacity in Russia stands at 250,000 tpa of pipe grade PE.

As a result of the Stavrolen outage pipe grade polyethylene production fell below 200,000 tons in 2012, leading to price increases. The deficit in the Russian market was offset by deliveries of imported materials until resumed production at Budyennovsk. Imports from Saudi Arabia represent the main source for Russian consumers, rising

to 36% of total inward purchases in 2012. The volume of imports from other sources may rise this year, from South Korea and Thailand whilst purchases from Europe are declining.

In the next few years the deficit for the polyethylene pipe market could be eliminated after the start-up of a number of major petrochemical plants. In addition to the Russian projects at Nizhnekamsk and Tobolsk, a major new complex is being constructed at Atyrau in Kazakhstan where the Russian market will be targeted for sales.

Russian Polymer Production (unit-kilo tons)				
Product	Jan-Jun 13	Jan-Jun 12		
Polyethylene	921	821.8		
Polystyrene	227.4	198.9		
PVC	341.6	333.6		
Polypropylene	410.3	370.9		
Polyamide	66.3	65.6		
Synthetic Rubber	776	738.3		

# Russian PVC Imports, Jan-Jun 2013 Others 12% 48% China 40%

### Russian PVC imports, Jan-Jun 2013

Imports of PVC rose by 30% in the first half of 2013 to 242,000 tons. Optimistic expectations regarding the growth in demand for finished products manufactured from PVC have encouraged many Russian processors and trading companies actively buy resin in foreign markets. As a consequence, imports of PVC in the first six months rose to record levels, with US and China providing the largest share of inward shipments.

The peak months this year were March and April, when the external supply totalled 58,000 tons and

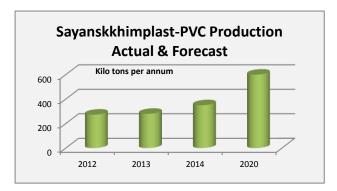
54,700 tons respectively. Volumes started to slow down in May and June due to weak demand for finished products. Imports amounted to 35,700 tons in June which was 4% down on May. Russian production of suspension PVC totalled 267,200 tons in the first five months in 2013.



### Russian PVC production, Jan-Jun 2013

Production of PVC in Russia in January-June 2013 rose 2% over the same period last year to 328,000 tons. Sayanskhimplast increased production of PVC by 6% to 154,200 tons. Bashkir Soda Company at Sterlitamak produced 107,300 tons in the first half of 2013, 7% down on last year. Kaustik at Volgograd, which incorporated the Plastkard division at the end of 2011, increased PVC production by 18% in the first six months to 47,200 tons.

Suspension grade PVC totalled 319,000 tons in the period January to June this year, 3% up. PVC paste production was 9,000 tons in the first six months, 10% down on 2012. The sole producer of PVC paste in Russia is Khimprom at Volgograd. Khimprom stopped production of VCM in mid-July due to the collapse of the roof.



### Sayanskkhimplast 2012

Russia's largest PVC producer Sayanskkhimplast reduced its net profit by 19.4% in 2012 against 2011 to 1.022 billion roubles. Revenues increased by 11% to 10.322 billion roubles.

Costs of production increased by 10% up to 7.626 billion roubles, as a result of gross profit decreased by 10%to 2.696 billion roubles. The share of Sayanskkhimplast in Russian caustic soda production amounted to 17% in 2012 and 45.9% for PVC.

### **Aromatics & derivatives**

### Russian benzene, Jan-Jun 2013

Sales of benzene from domestic producers amounted to 64,600 tons in June which was unchanged from May. Overall sales in the second quarter were down to 164,700 tons against 189,600 tons in the first quarter. In the first half of the year Russian plants shipped 354,300 tons to the domestic market which is practically the same period as in 2012. The largest buyers include Azot at Kemerovo

Benzana Chiamanta hu Busaian Bradusara				
Benzene Shipments by Russian Producers (unit-kilo tons)				
Company	Q1 13	Q2 13		
Altay-Koks	8.3	6.2		
Angarsk Polymer Plant	16.1	14.4		
Gazprom Neft	25.9	24.5		
Zapsib	14.4	15.6		
Kinef, Kirishi	16.9	12.8		
Moskoks	2.3	1.9		
Stavrolen	0.0	10.9		
Koks	8.8	8.6		
Magnitogorsk MK	12.4	13.0		
Nizhniy Tagil MK	3.3	3.0		
Novokuznetsk MK	1.5	1.6		
Novolipetsk MK	6.1	6.3		
Ryazan NPZ	7.6	3.8		
Severstal	9.9	8.9		
SIBUR-Neftekhim	22.5	15.8		
Uralorgsintez	17.8	16.2		
Ural Steel	0.8	0.6		
Chelyabinsk MK	3.3	4.1		
Slavneft-Yaroslavlorgsintez	16.7	9.3		
Gazprom Neftekhim Salavat	1.3	2.1		
Others	1.1	1.6		
Total	197.0	181.4		

ArselorMittalTemirtau sold 597 tons in June, of which 356 tons
were shipped to Kazanorgsintez and 241 tons to Kuibyshevazot.
In the first half of 2013 ArselorMittalTemirtau shipped 2,100 tons
of benzene to the domestic market, 1.8 times more than in the
same period in 2012.

(17% of gross purchases) and Kuibyshevazot (14%).

### Russian toluene, Jan-Jun 2013

In the first half of 2013 shipments of Russian toluene by rail to domestic customers totalled 61.430 tons, 2% less than in the same period in 2012. Russian toluene rail shipments totalled 11,300 tons in June, 2% more than in May and 58% higher than in June 2012. The main consumer of commercial toluene in Russia in June 2013 was a manufacturer of industrial explosives Bijsk oleum plant taking 1,870 tons of deliveries. The company Obninsk Oil & Gas, which supplies motor fuel, purchased 1,090 tons (10%), whilst Nizhnekamskneftekhim, where toluene is used as a solvent for rubber 580 tons (5%).

Russian toluene production totalled 153,720 tons in the first half of 2013, 3% down on last year. Most of the production comes from refineries, but some of the coke producers also produce small volumes.

### Russian phenol, Jan-Jun 2013

Russian phenol production amounted to 142,100 tons in the first six months in 2013, 3% up on the same period last year. Russian producers sold 9,700 tons of phenol to the domestic market in June, 9% down on May. Kazanorgsintez increased shipments by 82% against May to 1,400 tons, although remaining only a smaller player in the merchant market.

OX Domestic Sales by Russian Producers (unit-kilo tons)				
Company	Q1 13	Q2 13		
Gazprom Neft	15.2	18.5		
Ufaneftekhim	6.5	6.3		
Kinef, Kirishi	9.5	11.4		
Total	31.1	36.2		
PX Domestic Sales by Russian Producers (unit-kilo tons)				
Company	Q1 13	Q2 13		
Gazprom Neft	13.9	9.4		
Ufaneftekhim	29.9	30.0		

Most of the phenol produced by Kazanorgsintez is consumed in the production of bisphenol A. Samaraorgsintez undertook a maintenance shutdown in May and June and as a result shipped 47% less phenol than in May, down to 1,700 tons. Exports by Samaraorgsintez were also limited in this period. Omsk Kaucuk and Ufaorgsintez stabilised sales volumes of phenol, shipping 5.200 tons in June (1% more than in May) and 1,400 tons (only 4% less) respectively.

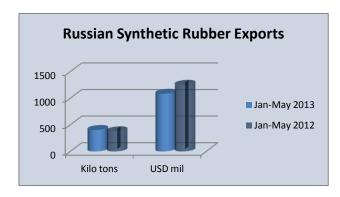
### Russian orthoxylene, Jan-Jun 2013

Domestic sales of orthoxylene amounted to 12,230 tons in June, 11% less than in May. Shares of the three producers of orthoxylene included Gazprom Neft with 53% or 6,400 tons, Kirishinefteorgsintez 31% 3,700 tons and Ufaneftekhim 16% 2,000 tons.

Kamteks-Khimprom bought 8,100 tons of orthoxylene in June or 66% of total purchases, followed by Gazprom Neftekhim Salavat with 2,000 tons and Zagorsk Paint Plant 606 tons. A further 1,100 tons was bought trading companies. In the first half of 2013 shipments of orthoxylene to the domestic market totalled 67,500 tons which is 1% more than in 2012.

Export volumes of orthoxylene from Russia in June 2013 amounted to 2,350 tons, twice less than in May and 37% lower than in June 2012. Gazprom Neft at Omsk reduced its production rates during the month. In the first half of 2013 exports of orthoxylene from Russia amounted to 18,040 tons, 31% less than last year.

### **Synthetic Rubber**



### Russian synthetic rubber export activity

Exports of synthetic rubber from Russia rose from 379,000 tons in the period January-May 2012 to 404,000 tons this year. At the same time revenues from synthetic rubber exports declined from \$1.253 billion in 2012 to \$1.085 billion in 2013, translating into a reduction in revenue per ton of about 18%.

Synthetic rubber exports from Russia totalled 234,000 tons in the first quarter this year, achieving a higher volume than any of the four quarters in 2012. Nizhnekamskneftekhim is by far the largest exporter.

accounting for more than half of total shipments. Production totalled 776,000 tons in the first half this year against 738,000 tons in 2012. Despite the rise in production and exports, most producers have reported weak margins due principally to a lack of confidence in the tyre markets.

Russian Synthetic Rubber Exports (unit-kilo tons)					
Producer	Q1 12	Q2 12	Q3 12	Q4 12	Q1 13
Nizhnekamskneftekhim	115	125.9	123.7	142.9	133
Togliattikaucuk	27.5	31.4	26.5	24	35
Voronezhsintezkaucuk	27.4	30.8	24.3	28	32
Sintez-Kaucuk	20.2	22	20.3	18	18
Omsk Kaucuk	7.8	8.5	5.6	3	7
Efremov SR Plant	4.6	5	0.7	2.1	4
Krasnoyarsk SR Plant	5.6	5.9	8	7	5
Total	208.1	229.5	209.1	225	234

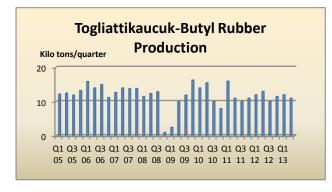
### Voronezhsintezkaucuk-TEP commissioning

SIBUR has started commissioning two production lines for thermoplastic elastomers on the new TEP-50 plant at Voronezh. Currently all the links of the production chain are running, from raw material preparation and cleaning solvents, before packaging granular TEP in big bags for shipping to customers.

After stopping for an overhaul Voronezhsintezkaucuk plans to carry out comprehensive 72-hour production test for TEP-50 before starting production. Construction of the

new TEP-50 plant started in 2011 and has cost around 4.7 billion roubles.

The new 50,000 tpa plant is aimed at meeting the growing demand for thermoplastic elastomers in the domestic market, particularly for polymer-bitumen binders (PBBs). Adding to the current plant of 35,000 tpa, Voronezhsintezkaucuk will increase its capacity to 85,000 tpa. Voronezhsintezkaucuk produces in total more than 30 kinds of products.



### Togliattikaucuk-halobutyl rubber project delay

This year Togliattikaucuk will launch a new automated production line for butyl rubber at a cost of \$1.5 billion. However, the proposed project for building a unit for halobutyl rubber production has been postponed. Halobutyl rubber investments at Togliatti will be undertaken at a later date, possibly within two years but this would depend on finding an affordable technology.

The sole producer of halobutyl rubber in Russia is Nizhnekamskneftekhim which uses technology supplied by the Yaroslavl Institute Yarsintez. The size

of the Russian market for halobutyl rubber is estimated currently at 3,000 tpa, and thus even in the event of rapid growth rates may take many years before export dependency starts to decline.

Togliattikaucuk has completed the commissioning of three towers for the cooling water service. The reconstruction has cost the company around 145 million roubles. By the end of 2014 the company plans to launch 4 more updated facilities and a new cooling tower. Togliattikaucuk's other primary objective is to boost

the capacity of production of isoprene rubber to 120,000 tpa. Togliattikaucuk recently received approval for use of isoprene rubber grades SKI-3S for packaging in the food industry. Products have been tested and meet the requirements for goods. Now polyisoprene SKI-3S produced by Togliattikaucuk can be used for the production of seals equipment and packaging materials that are used in contact with food.

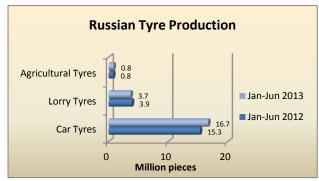
### Rhein-Chemie opens new plant at Liptesk

Lanxess subsidiary Rhein Chemie has opened its first manufacturing plant in Russia. The plant located in the SEZ Lipetsk will produce Rhenogran polymer-additives for rubber, mainly used in the tyre industry and automobile industry. The product range includes processing accelerators, antioxidants and vulcanization activators for the manufacture of tyres and rubber products, such as extruded profiles, hoses and seals for the automotive industry, etc.

The capacity of the new plant is 1,500 tpa of polymer-dispersed additives Rhenogran. Main market sales are expected to focus on Russia and other CIS countries. Investment in the project has cost an €5 million. By 2016, Rhein Chemie plans to launch a plant for the production of vulcanization diaphragms with a capacity of 80,000 pieces per year.

### Russian tyre news

US tyre manufacturer Titan has agreed with Kordiant to jointly manage Voltyre-Prom. Titan has set a target of increasing its market presence in Russia and the CIS. An agreement with a consortium of investors involves a three-year partnership program with Kordiant for the sales of car, light truck and truck tyres. Kordiant produces tyres under the brands Kordiant and TyRex and was established on the basis of tyre assets of SIBUR.



In addition to Voltyre-Prom, the Kordiant holding includes Omskshina, Position-East and Yaroslavl Tyre Plant. Voltyre-Prom specialises in agricultural and industrial tyres. The group's total capacity is about 2.3 million tyres per annum. The share of Voltyre-Prom in the Russian market of agricultural tyres in 2012 was 43%. Last year, the company produced a total of 1.35 million tyres.

Continental Corporation has started test production of tyres at a plant at Kaluga. Equipment for the plant has

been delivered from Puchov in Slovakia. The production capacity of the plant will allow the first phase to produce 4 million tyres per annum and then up to 16 million tyres per annum including 2 million truck tyres. Continental Kaluga will produce summer and winter tyres of three brands including Continental, Gislaved and Matador.

Yokohama may expand its production site at Lipetsk by as much as three-fold, raising tyre capacity up to 6 million pieces per annum. Previously Yokohama stated an intention to expand 1.5 times. New plans are being considered in the Tokyo headquarters.

### **Methanol & Ammonia**

Methanol Domestic Sales by Russian Producers (unit-kilo tons)			
Company	Q1 13	Q2 13	
Azot Nevinomyssk	7.3	8.5	
Azot Novomoskovsk	28.6	16.2	
Metafrax	100.5	92.3	
Sibmetakhim	120.2	97.2	
Togliattiazot	97.3	96.0	
Shchekinoazot	12.7	15.2	
Others	5.0	4.5	
Total	371.6	329.9	

### Russian methanol

Despite seasonally low demand for methanol in Russia in the summer months sales volumes on the domestic market amounted to 115,000 tons in June, almost the same as in May. Metafrax, Sibmetakhim and Tomet accounted for 85% of sales on the domestic market.

Sibmetakhim and Tomet in June increased volumes sold on the Russian domestic market by 4% and 14%, respectively. By contrast Metafrax reduced sales by 12% against May to 31,000 tons. Tomet shipped 36,000 tons in June and Sibmetakhim 33,000 tons.

Sibmetakhim at Tomsk underwent a shutdown at the end of June and restarted production in early July. During the repairs major components were replaced helping the plant to increase the operational reliability. ABB and Johnson Matthey were involved in the revamp process. Metafrax has no plans to reduce the volume of production due to reported problem of extending the life of the rail tanks. The target for methanol production by Metafrax for 2013 remain roughly 1 million tpa.

Russian Domestic Methanol Purchases					
(unit-kilo	(unit-kilo tons)				
Company	Q1 13	Q2 13			
Nizhnekamskneftekhim	65.4	57.8			
Togliattikaucuk	29.5	22.4			
Uralorgsintez	19.6	15.7			
SIBUR-Khimprom	3.5	3.3			
Tobolsk-Neftekhim	10.3	10.5			
Ektos-Volga	12.5	12.8			
Omsk Kaucuk	26.2	22.0			
Novokuibyshevsk NPZ	17.8	17.4			
Uralkhimplast	5.6	10.1			
Others	181.2	157.8			
Total	371.6	329.9			

### Metafrax, ammonia and urea projects

Metafrax plans to direct \$1 billion towards investment by 2020, concentrating \$700-800 million on the construction of production facilities for ammonia and urea. The company is considering two capacity options for urea ranging from 400,000 tpa to 600,000 tpa. If construction can start in 2015 as planned, the new facility could be launched in 2017-2018.

Metafrax also plans to renovate the production of pentaerythritol in 2014-2016. The cost of the project is estimated at more than €20 million; resulting in an increase in capacity of 6,000 tpa. Metafrax is ongoing with its plans to increase production capacity of methanol.

In 2012, the export of finished products for Metafrax amounted to 4.233 billion roubles in 2012, or 39.2% of the company's total revenues. The largest domestic consumers include

Nizhnekamskneftekhim, Omsk Kaucuk, Ufimsky NPZ, Empils, Syktyvkar Plywood Mill, etc. The main customers in the local Perm region, where Metafrax is located, include Uralorgsintez, SIBUR-Khimprom, Perm plywood mill, MetaDynea, and Azot.

### **Metafrax-Dynea Austria**

At the end of June Metafrax acquired Dynea Austria GmbH from Dynea Holding GmbH. The plant's capacity in Austria is 350,000 tpa of resin and 140,000 tpa of formaldehyde and has helped increase the total capacity for Metafrax for resin production to 700,000 tpa. The aim of the transaction is to improve the synergy of the group and provide more possibility for captive consumption. It raises capacity for processing methanol for Metafrax from 400,000 tpa to 500,000 tpa of methanol, thus reducing availability for merchant sales.

Metafrax includes four main divisions including Metafrax, Karbolit, MetaDynea and Dynea Austria. Joint Russian-Finnish companies MetaDynea and Karbodin were established between Metafrax and Dynea Chemicals in 2004-2005 in order to develop the production of synthetic resins for the chemical industry, mechanical engineering, automotive, woodworking and other industries. MetaDynea is located in the industrial area of Metafrax at Perm, and Karbodin in the Orekhovo-Moscow area.

### Akron, Jan-Jun 2013

Akron increased the production of mineral fertilisers by 1% in the first half of the year to 2.654 million tons. The production of nitrogen fertilisers increased by 3% up to 1.463 million tons, including urea by 14% to 315,500 tons. At the same time, the production of ammonium nitrate fell by 9% to 766,100 tons.

Akron Production	•	ons) Jan-Jun 12
Ammonia	954.6	945.9
Urea	315.5	277.0
Methanol	40.0	39.4
Formaldehyde	67.4	70.9
Urea-formaldehyde resins	84.1	85.5
Calcium Carbonate	121.8	162.6
Hydrochloric Acid	70.3	74.3

The Russian state bank VTB has signed a loan agreement with Akron for a loan of \$150 million in the three-year target programme to finance exports of fertilisers. The main production units of Akron include Akron (Veliky Novgorod), Drogobuzh (Smolensk region) and Hunzhi Akron (China).

Akron has received a positive opinion from Glavgosekspertiza regarding its Ammonia-4 project and permission to build a new ammonia plant with a capacity of 700,000 tpa. Total investment in the project is projected at \$420 million with the start of production planned for 2015.

The company is currently assessing equipment suppliers and contracts, etc, and preparing the site for construction works. Akron in 2012 produced 1.783 million tons of ammonia. The new project will enable the group to increase capacity for the production of ammonia by 65%. The advantage of a new ammonia plant will be lower per capita consumption of natural gas from 1,070 cubic metres of per ton at present to 927 cubic metres per ton.

### **Organic Products**

### Russian butanols, Jan-Jun 2013

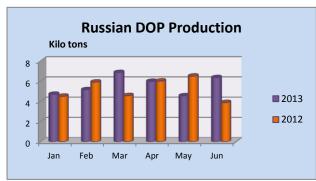
Domestic butanol sales totalled 30,500 tons in the first six months in 2013, 21% down on the same period last year. The ratio of normal butanol purchases in the Russian market amounted to 88%. Consumption was affected in June by the unplanned outage one line by Gazprom Neftekhim Salavat. Shipments totalled 3,320 tons which was 3% down on May but 57% lower than June 2012. Gazprom Neftekhim Salavat is continuing production in part, and is working to repair its second line.

Russian Butanol Domestic Sales (unit-kilo tons)			
Company	Q1 13	Q2 13	
Gazprom Neftekhim Salavat	8.9	2.6	
SIBUR-Khimprom	6.1	6.4	
Angarsk Polymer Plant	1.0	0.9	
Azot Nevinomyssk	0.8	0.9	
Totals	16.9	10.8	

Gazprom Neftekhim Salavat began a scheduled maintenance on 10 July, running through to 10 August. During this period, the Salavat plant will not produce a number of products including ethylene, propylene, benzene, and styrene.

Around 30% of domestic butanol sales in June were sent to Dmitrievsky Chemical Plant for the production of butyl acetate and export, whilst another 30% was delivered to Akrilat at Dzerzhinsk. Smaller consumers included Volga Orgsintez (9%), Sredneuralskiy copper smelter (3%), Kamenskvolokno (7%), and coatings manufacturer Russian paint (3%).

Exports of butanols were affected in June by the outage at Gazprom Neftekhim Salavat, falling 76% against May to 3,130 tons. In contrast to the domestic market where normal butanol dominates shipments, export shipments in June consisted of 99% isobutanol. Of the total exports 75% was delivered to China, with smaller volumes being transported to Turkey and Finland. SIBUR-Khimprom accounted for 89% of exports in June. Russian exports of butanols for the first half year amounted to 87,400 tons which was 4% higher than in 2012.



### Russian DOP, Jan-Jun 2013

DOP production amounted to 6,340 tons in June, 40% up on May. The increase in volume was due to resumed production of DOP by Gazprom Neftekhim Salavat in the third week of June. The Salavat plant was idle in May due to maintenance, but production amounted to 1,050 tons in June.

The Roshalsky plant has also increased DOP production by 39% in June over May, totalling 2,830 tons. Kamteks -Khimprom reduced production by 2%.

For the first half-of 2013 Russia produced 33,520 tons of DOP which is 7% higher than last year.

### Russian pentaerythitol, Jan-Jun 2013

Metafrax produced 1,900 tons of pentaerythitol in June, which was 7% less than in May. Production totalled 11,800 tons in the first half of the year, 2% less than in 2012. The share of Metafrax in the Russian market for pentaerythitol remains the same as in 2012, at around 80%, with the remainder being sourced largely from China.

## Russian Caustic Soda Trade Kilo tons 60 40 20 Jan-May 2013 Jan-May 2012 Exports Imports

### **Chlorine**

### Russian caustic soda cartel

The Arbitration Court of Moscow has dismissed the appeal of the caustic soda producers against the cartel decision taken by the Federal Anti-Monopoly Service (FAS). Producers including Kaustik at Sterlitamak, Sayanskkhimplast, SIBUR-Neftekhim, SIBUR Holding and Plastkab have sought to invalidate the decision of the FAS from December 2011. The FAS believed that the producers were operating a cartel for caustic soda prices.

### Russian caustic soda exports, Jan-May 2013

Russian caustic soda exports fell by 0.8% in the period January to May 2013 to 73,900 tons. Russia's largest exporter of caustic soda is Kaustik at Volgograd which exported 30,800 tons in the first five months this year. The main consumers of Russian caustic soda include Turkey and Ukraine, accounting for 47% and 43% respectively. Total Russian imports of caustic soda in January-May 2013 amounted to 18,700 tons, an increase of 10% over last year.

Kaustik Volgograd Product Sales (kilo tons)		
Product	2012	2011
Caustic Soda Liquid	104.6	120.9
Caustic Soda Solid	105.1	93.0
HCL	264.7	248.7
Chlorine in Containers	10.6	11.5
Chlorine in Small Packages	1.4	1.5
Methyl Chloride	1.3	1.4
Liquid chlorine in cisterns	28.5	35.2
Chloroparaffins	14.5	14.2
Sodium Hypochlorite	11.8	12.1
PVC	85.7	0
Plasticizers	3.4	0

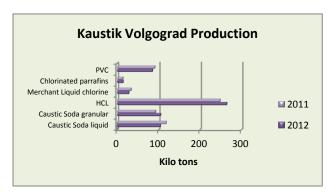
### Kaustik Volgograd 2012

Kaustik at Volgograd, managed by Nikokhim, achieved a 43% increase in the production of marketable products in 2012 over 2011 up to 9.998 billion roubles. The company attributed the growth rate of addition of Plastkard to Kaustik. The Plastkard division produced 85,300 tons of PVC in 2012.

In addition to the Plastkard amalgamation Kaustik increased production of hydrochloric acid by 6.5% in June to 264,700 tons, and granular caustic soda by 13% to 105,000 tons. The production of chlorinated paraffins increased by 2.4% to 14,500 tons.

Kaustik reduced the production of commercial liquid chlorine by 19.2% to 28,450 tons and liquid caustic soda by 13.5% to

104,630 tons. In February this year, Nikokhim completed the unification under its management of Kaustik including Plastkard and the European chemical company EHK. Nikokhim also possesses a 50% stake in the jv Soligran with Solvay.



In terms of the chlorine plant Kaustik is faced by high costs or electricity in the mercury process. Thus the company is focused on improving energy consumption. To minimize voltage electrolysis at Kaustik, a project of modernization of cells is underway using technology supplied by De Nora. After the completion of the modernisation of cells the aggregate economic effect (saving on electricity) will be about 20%.

### SIBUR-Neftekhim completes the closure of the chlorine division at Dzerzhinsk

SIBUR Neftekhim has completed the dismantling and

disposal of obsolete chlorine production plants of the former Kaprolaktam division at Dzerzhinsk which stopped production in April 2013. The remaining parts of the plant were transferred to the industrial park, Oka-Polymer (also part of SIBUR). The ethylene chlorohydrin plant was sold to Kazan Synthetic Rubber Plant and the brake fluids plant sold to Antifreeze-Synthesis. Both these companies will operate in the industrial park Oka-Polymer.

### Oka-Polymer, Dzerzhinsk

In the first half of 2013, 8 further companies became new residents of the industrial park Oka-Polymer. As a result the park has now achieved up to 18 residents including both production companies, service companies, etc. The total volume of investments in new facilities in the Oka-Polymer amounts to 3.6 billion roubles. By the end of 2013 the aim is to increase the number of residents to 25.

The industrial park started work initially in June 2012. The advantages of the site include the geographical location of the site at Dzerzhinsk, which covers logistics, energy security, etc. PVC processing is the main focus of the park where residents are able to start operations quickly and will have a regular source of supply. The infrastructure of the industrial park has already implemented the basic needs of processors and has established a good platform for new projects.

### **Galopolymer 2012**

Galopolymer reduced the production of marketable products in 2012 by 8.8% up to 9.074 billion roubles. The company's revenue from sales of products fell 1.3 times and reached 6.832 billion roubles; net profit fell 4-fold, to 1.205 billion roubles. The share of products shipped for export fell to 19% from 36.6% in 2011.

Dunning Cha	mical Drade	ation	
Russian Chemical Production (unit-kilo tons)			
Product	Jan-Jun 13	Jan-Jun 12	
Caustic Soda	532	543.7	
Soda Ash	1267	1427.3	
Ethylene	1365	1234.0	
Propylene	661.7	589.7	
Benzene	607.3	575.7	
Xylenes	264	236.8	
Styrene	370.6	287.8	
Phenol	142.1	140.3	
Ammonia	7400	6974.6	
Nitrogen Fertilisers	4266	4246.3	
Phosphate Fertilisers	1581	1545.9	
Potash Fertilisers	3258	3584.3	
Plastics in Bulk	3003	2809.0	
Synthetic Fibres	71.2	70.6	
Naphtha	6900	6838.5	

Galopolymer operates a vertical production structure, producing chlorine at Kirov-Chipetskiy for usage for the production of Kladon-22 at Perm. This is the raw material for PTFE. Galopolymer invested 929.7 million roubles in 2012 in the project to create chloroform methane production technology using natural gas instead of ethanol. In addition, 30.2 million roubles were directed to electrochemical fluorination. In 2013, the company plans to implement projects that reduce consumption rates in the production of HFC-22, tetrafluoroethylene, and chlorine.

### **Other Products**

### **Ust Luga investments**

In recent weeks SIBUR and Novatek have opened new hydrocarbon terminals at Ust-Luga which will increase the volumes of products transhipped through Ust-Luga. Freight shipments through Ust Luga totalled 46.8 million tons in 2012 and should surpass 55 million tons in 2013.

SIBUR opened its new terminal for LPGs at Ust-Luga in June, which cost around 25 billion roubles to construct. SIBUR's complex at Ust-Luga is the largest in the CIS and the first in the

north-west Russia for the transhipment of LPGs. Throughput of the complex allows for a handling up to 1.5 million tpa of LPG and 2.5 million tpa of light oil. The isothermal terminal park LPG storage allows for the acceptance of almost all types of modern ships, including refrigerator vessels.

The terminal has a favourable geographical position with access to the markets of north-west Europe. Currently,



the traditional areas of Russian exports volumes of LPG in Europe are land supply, foreign ports of the Black Sea and the Baltic. Thus, the terminal in Ust-Luga creates Russian infrastructure for marine handling, reducing dependence on foreign ports.

SIBUR's terminal in Ust-Luga is a project of federal significance and was built with infrastructure support from the government. This is reflected in the cooperation agreement SIBUR and Railways until 2020 and the tripartite agreement SIBUR Rosmorport and the Federal Agency of Maritime and River

Transport.

Novatek has begun the first stage of the complex for transhipment and fractionation of stable gas condensate at Ust-Luga. The first tanker shipment will consist of 80,000 tons of naphtha produced at the complex, and delivered to Braskem. The first phase of the complex includes the installation on the fractionation of stable gas condensate design capacity of 3 million tpa, a commodity farm with a capacity 520,000 metres, a deep-water dock which is able to receive tankers with a deadweight up to 120,000 tons, etc.

Construction of the second phase includes another installation on the fractionation of stable gas condensate design capacity of 3 million tpa. The completion of the second phase is scheduled for the fourth quarter of 2013. The launch of the complex allows Novatek to enter new markets expanding the range products with high added value.

Russian Polymer Pipe Market (unit-kilo tons)		
	2012	2011
Production	445	390
Imports	107	82
Exports	9.1	7.3
Market Balance	542.9	464.7

### Russian polyethylene pipe investments

Geopolis is investing 800 million roubles in the construction of a plant for the production of polyethylene pipes at Dzerzhinsk. Output will amount to 4,000 tons of polymers per month. Pipes are being designed for the transportation of cold water and natural gas. In the first stage Geopolis plans to produce pipes of small and medium diameter from 20 mm to 630 mm. During

### **Efremov Chemical Plant-modernisation**

Shchekinoazot plans to complete the modernisation of the Efremov Chemical Plant in 2015, involving the reconstruction of the rotation cycle which will reduce energy consumption. It will also create additional points of loading oleum tank containers, thus achieving economies in railway tariffs and increase the load of the rolling stock to the maximum. Efremov Chemical Plant produces sulphuric acid, oleum, and production capacity amounts to 500,000 tpa. Production started originally in 1982, and in the early 1990s the company was in danger of closing until Shchekinoazot decided to link the plant as an affiliate. Sulphuric acid is used in the caprolactam production process by Shchekinoazot.

### Evonik-new plant for ammono acids in Russia

Evonik Industries is expanding its capacity for amino acids for feed additives at its Volgodonsk plant in the Rostov region. The plant is being constructed by the jv DonBioTech in which Evonik Industries shares ownwership with the Russian agroindustrial trust. The plant is scheduled for commissioning in 2015, and its capacity is expected to be 100,000 tpa of feed additive Biolys ®. Wheat from the Rostov region is used as the raw material for the plant.

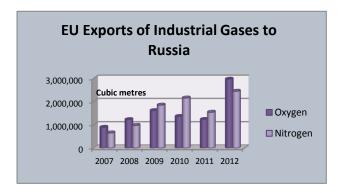
the construction of the second and third stage of production the company plans the installation of extrusion lines for the production of large diameter pipes up to 2400 mm. Full production is scheduled for commissioning in 2016.

Plant Polymer is investing 320 million roubles in the construction of a plant for the production of plastic pipes and coating materials. Construction of the plant, located in the Sunzha district of Ingushetia in southern Russia. began in March 2013 and production is aimed to start in February 2015. The Ministry of Construction of Ingushetia has concluded a contract with Yunstroy State contract for the construction of the plant, which will have a capacity of 1,500 tpa of polyethylene and polyolefin pressure and sewage pipes, and 4,400 tpa of PVC profiles. Products from the plant are intended to be sold mainly in the North Caucasus region.

### **Industrial gases**

### SIBUR-Linde

SIBUR and Linde signed agreements for the construction and operation of an air separation plant at Dzerzhinsk in order to supply industrial gases (oxygen, nitrogen and compressed air) for the production of ethylene oxide and glycols. The capacity of new air separation plant for oxygen gas is rated at 30 cubic metres per hour. Linde's investment in the project could amount to €70 million. The planned in-service date of the new production has been set for 2015.



The plant will improve the operating efficiency of production of ethylene oxide and glycols at the Dzerzhinsk site. Until recently, the industrial gases including oxygen, nitrogen and compressed air were produced independently by SIBUR-Neftekhim in the air separation shop number 603. This has operated since 1982, working in conjunction with the ethylene oxide and glycol plants. From 1 July the air separation plant was transferred to Linde Gas Rus. The parties have also entered into an agreement under which SIBUR will provide power energy, and Linde will act as a long term supplier of industrial gases.

### Praxair-Russia

Praxair has bought Volgograd Oxygen Factory with a view towards expanding the company's performance and increase the volume of sales in the southern regions of Russia. Volgograd Oxygen Plant manufactures and supplies a wide range of gases for use in engineering, manufacturing, construction, medicine and research. In 2012 Praxair acquired Volga Nitrogen which has two air separation plants.

Kuibyshevazot and Praxair Togliatti Nitrogen signed long-term supply agreement for oxygen, nitrogen and compressed dry air. The contract amount is 12.9 billion roubles lasting for a period of 17 years. This follows the creation of the jv between Kuibyshevazot and Linde for the production of ammonia and hydrogen. Praxair is building a plant in the SEZ Togliatti for the production of industrial gases. The project is scheduled for completion by the end of 2014.

### **Belarus**

### Azot Grodno, Jan-Jun 2013

Azot at Grodno produced 68,300 tons of caprolactam in the first six months in 2013, against 66,900 tons in 2012. Khimvolokno, part of Azot Grodno, has announced the launch of its 91,000 tpa polyamide 6 production plant. The multi line facility at Grodno has replaced seven old lines that have been closed.

Azot Grodno Production (unit-kilo tons)			
Product	Jan-Jun 13	Jan-Jun 12	
Methanol	44.2	40.2	
Caprolactam	68.3	66.9	
Polyamide primary	37.2	26.6	
Polyamide filled	5.1	5.5	
Ammonia	510.8	533.8	
Urea	462.5	495.7	
Fertilisers	375.5	391.7	

It will allow the company to nearly double its production capacity at the site from 140 to 260 tons per day. Most of the pellets produced by the new polymerisation unit are processed into carpet yarn and high quality tyre cord at a spinning mill adjacent to the plant. The remainder is used to produce engineering plastics, or for various other applications in the global market.

### Belneftekhim-Gazprom agreement for Grodno project

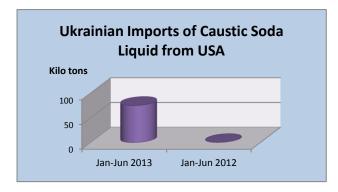
Belneftekhim and a subsidiary of Gazprom have reached agreement on cooperation of the investment project being undertaken by Azot at Grodno. The project for the construction of the new nitrogen complex includes the combined plant for the

production of ammonia, methanol, hydrogen and urea. Nitrogen fertiliser production capacity will increase by 231,000 tpa. The cost of the project is estimated at more than \$1 billion.

### **Ukraine**

### Ukrainian soda ash & caustic production

Ukrainian production of soda ash amounted to 47,900 tons in May, 7,700 tons down against April. Soda ash production in January-May reduced by 1.1% against January-May 2012 to 258,400 tons. Crimean Soda Plant, the only producer of soda ash in Ukraine, supplies about 80% of the Ukrainian consumption of soda ash.



Caustic production at Dniproazot amounted to 4,700 tons in May, against 11,700 tons in the same month last year. In January-May this year, caustic soda production decreased by 69.0% against the same period last year to 19.800 tons. Dniproazot has been the sole producer of caustic soda to date. The restart of the plant at Kalush in August will help to address domestic demand for caustic soda. Largely as a result of the position at Kalush the share of caustic soda liquid imports in consumption has increased from 43% to 72% in the first half of this year.

Imports of liquid caustic from Russia have declined in place of US imports. In the first six months the US exported 75,000 tons of caustic soda liquid to Ukraine against zero last year. Smaller volumes of imports have come from Russia from producers Volgograd Khimprom, Kaustik at Sterlitamak and Kaustik at Volgograd. In the solid market imports have been sourced this year from Russia, Poland, China and Romania. Overall this year imports of caustic soda in Ukraine increased by 100,000 tons.

Ukrainian Chemical Production (unit-kilo tons)			
Product	Jan-May 2013	Jan-May 2012	
Acetic Acid	44.1	49.4	
Ammonia	2208.5	2027.3	
Caprolactam	0.0	25.1	
Caustic Soda	19.8	71.1	
Ethylene	0.0	63.3	
Methanol	53.4	69.7	
Polyethylene	0.0	45.6	
Polypropylene	0.0	25.5	
Polystyrene	6.9	6.4	
Polyvinyl Acetate	0.0	3.3	
PVC	0.0	80.9	
Propylene	0.0	36.1	
Soda Ash	258.2	261.3	
Titanium Dioxide	59.732	63.9	
Toluene	1.7	2.8	

### Karpatneftekhim to resume work

The restart of Karpatneftehim is scheduled for 2 August this year. In order to support raw material deliveries the State Administration of Railway Transport of Ukraine (has reduced the cost of transportation of petrochemical raw materials to Karpatneftekhim. In accordance with the decision of the Tariff Commission in June 2013, Karpatneftekhim will receive a discount for the transportation of petrochemical feedstocks (liquefied petroleum gas and heavy distillates).

The new tariff order provides a discount of 20% for the transportation of technical butane and naphtha. The rate applies to both domestic shipments and the import of raw materials. The condition for the agreed benefits is that Karpatneftekhim receives no less than 30,000 tons per month of butane and 10,000 tons of naphtha.

### **Azot Severodonetsk**

Azot at Severodonetsk shipped 1,600 tons of methanol to the domestic market in June, 6% higher than May, and all of which

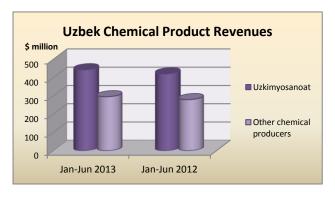
were sold to Ukrainian gas companies. KarpatSmol, the resin producer, did not buy from Azot preferring to buy from Russian producers. One of Azot's main customers for methanol is Chernomorneftegas which can buy up to a thousand tons a month.

In 2013 Azot aims to invest \$148.6 million in modernisation. Most of the funds being invested will be targeted in the repair shops that produce fertilisers. The largest investment (\$24.4 million will be used to upgrade and repair the ammonia shops. Maintenance will start in August during which ammonia capacity will be increased from 1360 tons per day to 1580 tons. Capacity will rise from 496,000 tpa to 577,000 tpa.

### Ukrainian plasticizer alcohols

Imports of DOP increased 11% in the first five months in 2013 to 1,560 tons. Major suppliers this year have included Deza from the Czech Republic and Boryszew from Poland. Phthalic anhydride imports rose 19% in the period January to May 2013 over 2012 to 3,710 tons. Major suppliers have included Kamteks-Khimprom from Russia and the Belarusian producer Lakokraska at Lida.

### **Central Asia**



revenues and primarily at present focused on fertilisers.

### Uzbek chemical production, Jan-Jun 2013

In the first half of this year, revenues from chemical product sales in Uzbekistan amounted to \$739 million which was 5.3% up on the same period in 2012. Production of plant protection agents rose 67.9% to 1,956.3 tons, representing the largest increase in the industry.

Exports from chemicals totalled \$354.2 million in the first quarter. 33.9% up on last year. Of the producers the state holding Uzkimyosanoat is the most important source of sales, accounting for around 60% of

### Uzbekistan gas chemical production expansion

Uzbekistan has set ambitious targets to increase output of production of gas chemical products by around nine times over the next five years, principally based on the processing of hydrocarbon raw materials at Ustyurt and Mubarek gas chemical complexes. Revenues from the chemical industry are currently small and rising only modestly. However, revenues can be expected to jump sharply when the BDO project and the large scale polyolefin projects are completed and production is up and running.

### ING-UzkorGasChemical project

ING Group is carrying out global marketing campaign for the UzKorGasChemical project at Ustyurt in Uzbekistan which is being designed to produce gas, HDPE and polypropylene for internal and external markets. It is expected that Ustyurt Gas Chemical Complex will be commissioned in early 2016 based on project schedules.

running. The complex will annually process 4.5 billion cubic metres of gas, 400,000 tpa of polyethylene and 100,000 tpa of polypropylene. Financing of the project cost of \$4.16 billion has been conducted through a loan consortium of foreign financial institutions for \$2.5 billion, equity joint venture founders Uz-Kor Gas Chemical \$1.410 billion, as well as the Fund for Reconstruction and Development of Uzbekistan \$100 million.

### Navoiazot-ammonia project tender

Navoiazot announced a tender in May for the construction of a turnkey complex for the production of ammonia. The project includes 900,000 tpa of ammonia and 1 million tpa of urea. Funding for projects worth \$980 million will be financed by Navoiazot's own funds, the Fund for Reconstruction and Development of Uzbekistan, and foreign banks. Project construction is intended to last 38 months and bids for the project will be accepted up till 9 July. Urea production in Uzbekistan increased by 1.7% in 2012 over 2011 to 513,500 tons in bulk.

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### Relevant Currencies

Czech crown. Kc. \$1=20.753. €1=25.833: Hungarian Forint. Ft. \$1=229.448. €1=288.154: Polish zloty. zl. \$1=3.414. €1=4.280: Bulgarian leva: \$1=1.5956. €1=1.557: Romanian Lei. \$1=3.555. €1=4.463: Croatian Kuna HRK. \$1=5.998. €1=7.530: Ukrainian hryvnia. \$1=8.07. €1=10.140: Rus rouble. \$1=33.192. €1=41.867

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