

# CIREC

## MONTHLY NEWS

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

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 | Transcaucasus | Central Asia | Kazakhstan

Issue 273, 16 August 2013

---

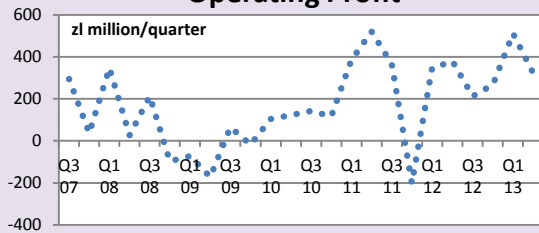
### FEATURES FROM THIS ISSUE

---

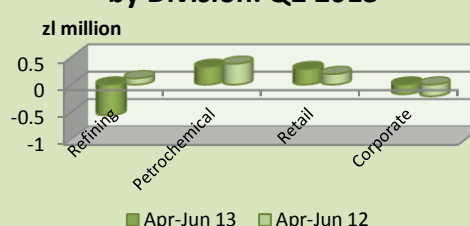
- **UNIPETROL SIGNS AGREEMENT WITH ROSNEFT, GUARANTEEING OIL SUPPLY UNTIL THE END OF 2016**
- **UNIPETROL SEES RISE IN OLEFIN MODEL MARGINS IN FIRST HALF OF 2013**
- **SPOLANA RESTARTS PVC AND CAPROLACTAM UNITS AFTER FLOODS**
- **TVK IMPROVES PERFORMANCE IN SECOND QUARTER DESPITE SLOW DEMAND FOR POLYMERS**
- **TVK HOPES TO START NEW BUTADIENE PLANT IN FIRST HALF OF 2015**
- **NOVY URENGOY GAS CC SELECTS SBERBANK TO PROVIDE A FOUR YEAR LOAN FOR €225 MILLION**
- **SIBUR-KSTOVO CLOSE TO COMPLETION OF FIRST STAGE OF CRACKER REVAMP**
- **SANORS & ROSNEFT CONSIDER FEEDSTOCK OPTIONS FOR PETROCHEMICAL PROJECT INVESTMENTS**
- **KAZANORGSINTEZ INCREASES PROFITS IN FIRST HALF OF 2013 DUE TO INCREASED ETHANE SUPPLY**
- **POLYOM AT OMSK NOW RUNNING NEW 180,000 TPA PLANT FOR PP AT FULL CAPACITY**
- **TOBOLSK-POLYMER AIMS TO START POLYPROPYLENE PLANT BY END OF AUGUST**
- **SIBUR & SINOPEC COMPLETE JV ARRANGEMENTS FOR RUBBER PRODUCTION AT KRASNOYARSK**
- **RUSSIAN ETHYLENE PRODUCTION ROSE BY 245,000 TONS IN H1 2013 TO 1.388 MILLION TONS**
- **ALKO-NAPHTHA IMPORTED MOST ITS PTA FROM PKN ORLEN IN FIRST HALF OF 2013**
- **RUSSIAN BUTANOL PRODUCTION TOTALLED 121,300 TONS IN H1 2013, 11% DOWN ON LAST YEAR**
- **BOPP PROJECT AT TOMSKNEFTEKHIM UNDERGOING INITIAL TESTING**
- **FOSAGRO SIGNS CONTRACT FOR NEW AMMONIA PLANT AT CHEREPOVETS**
- **KARPATNEFTEKHIM DELAYS RESTART ONCE AGAIN, THIS TIME TO SEPTEMBER**
- **METAFRAX INCREASED ITS NET PROFIT BY 38% IN THE FIRST HALF OF 2013**
- **ATYRAU AROMATICS COMPLEX START-UP DELAYED TO 2014 DUE TO LABOUR PROBLEMS**

## CENTRAL & SOUTH EAST EUROPE

**PKN Orlen-Petrochemical Division  
Operating Profit**



**PKN Orlen Financial Performance  
by Division. Q2 2013**



### PKN Orlen, Q2 2013

PKN Orlen's financial performance in the second quarter in 2013 was mainly affected by weak economics, with the refining sector proving the biggest division for losses. The model refining and petrochemical margins declined against the same period last year, while at the same time the Polish zloty depreciated against the US dollar and the euro. All of PKN Orlen's geographical markets saw a drop in the consumption of gasoline, whilst in Poland diesel oil consumption went down. Lower crude oil prices also had an adverse effect on the valuation of inventories, driving it down by approximately zloty 0.4 billion.

**PKN Orlen Group Chemical Sales  
(unit-kilo tons)**

Product	Jan-Jun 13	Jan-Jun 12
Monomers	243	251
Polymers	431	412
Aromatics	188	180
Fertilisers	488	592
Plastics	223	183
PTA	271	260
Other	728	684
Total	2,572	2,562

**PKN Orlen Group Chemical Production  
(unit-kilo tons)**

Product	Jan-Jun 13	Jan-Jun 12
Monomers	772	786
Polymers	444	420
Aromatics	191	183
Fertilisers	552	662
Plastics	209	200
PTA	266	276
Other	1,079	1,202
Total	3,513	3,729

PKN Orlen's refining division's EBITDA deteriorated by over zloty 800 million, which was only partly offset by a 5% increase in crude throughput and higher capacity utilisation. Petrochemical margins also softened due to the exchange rate depreciation although the group recorded a 4% increase in the petrochemical sales and achieved higher capacity utilisation across the main units. Sales volumes saw the strongest growth in polyolefin and PVC, but this was somewhat offset by a decline in fertiliser sales after a stoppage at Spolana in June following the floods.

In line with the strategy established towards the end of last year PKN Orlen is pursuing projects in the area of exploration for both conventional and unconventional hydrocarbon reserves, as well as work aimed to develop its power generation business. Capital expenditure in the first half of the year amounted to zloty 838 million, targeted on projects designed to ensure regulatory compliance and keep production assets fully operational. Around 40% of the total amount allocated to Capex was spent on growth-oriented projects.

In April this year the Orlen Group laid the cornerstone for the construction of a 463 MW CCGT power unit at Wloclawek. From 2017 onwards, the new unit will co-generate electricity and heat for Anwil as well as third-party customers. Concurrently, work is also under way on a CCGT unit in Plock, with a rated capacity between 470 and 600 MW. These power plants will play a significant part in the Group's energy requirements and cost reductions in future.

Orlen's EBITDA for the petrochemical division was lower by zloty 163 million in the second quarter in 2013 against 2012 and totalled zloty 531 million. Overall the group sold higher volumes of polyolefins, plastics and PTA whilst reducing sales of fertilisers.

### Spolana restarts PVC and caprolactam

Spolana restarted PVC production on 13 August and caprolactam August 13, while the production of caprolactam was launched on 15 August. The Ministry of Environment has granted Spolana the opportunity to appeal against the decision not to extend the 2014 deadline for the production of chlorine using the mercury after 2014. Environmentalists claim that there are recurring high concentrations of mercury in the Neratovice area and the technology needs to be changed.

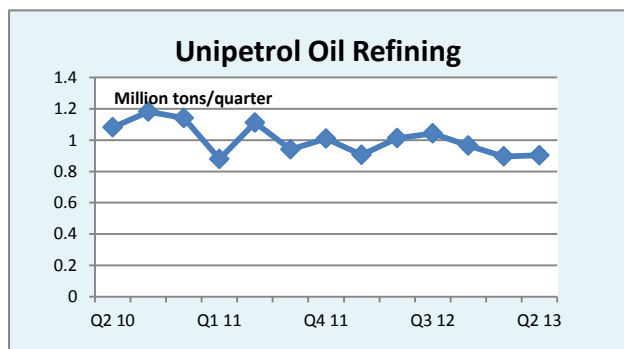
In its request to extend the production of chlorine using mercury after 2014 Spolana has argued that it has not been possible to meet its commitments to move to membrane in 2007 due to the economic problems in Europe. However, opposition to an extension is deep and it may prove difficult to extend the deadline unless Spolana can prove plans of investment.

<b>Unipetrol's Chemical Sales (unit-kilo tons)</b>		
<b>Product</b>	<b>Jan-Jun 13</b>	<b>Jan-Jun 12</b>
Ethylene	60	75
Propylene	10	21
Benzene	53	98
Urea	5	83
Ammonia	55	61
Butadiene	16	32
HDPE	135	132
PP	121	117
C4	42	37

#### **Unipetrol, Q2 2013**

The Unipetrol Group posted an EBITDA of Kc 663 million in the second quarter this year which was 51% up on the same period in 2012. Revenues totalled Kc 24.710 billion in Q2 which was 9% up. Results were influenced by lower sales volumes of the refining division coupled with lower refining margins and higher renewable surcharges (POZE). Whereas the Orlen Group recorded lower petrochemical margins, Unipetrol was able to achieve higher margins with also better sales of polymers.

Unipetrol's EBITDA in the petrochemical division amounted to Kc 682 million in Q2 mainly due to better petrochemical margins and higher sales volumes of polymers. Overall though the company recorded a sales decrease in petrochemical products of 5% in Q2 to 389,000 tons. This was mainly due to the shutdown of the urea plant at the beginning of this year and June floods which affected ammonia sales. Polymer sales were higher mainly in polyethylene (+27%), but also in polypropylene (+7%). Over the next five years, Unipetrol wants to improve its financial performance and maintain it at a sustainably positive level that will allow it to make further investments and to develop its resource base.



#### **Unipetrol refining division, Jan-Jun 2013**

The EBITDA from Unipetrol's refining division declined from Kc 386 million in the first half of 2012 to a loss of Kc 151 million in 2013. The model refining margin declined from \$2.2/bbl to \$1.7/bbl, driven by lower gasoline and diesel spreads. Sales volumes of oil products declined due to the unplanned shutdown at the Kralupy refinery in May and June. The Unipetrol group sold 1.553 million tons in the first half of the year against 1.617 million tons in 2012. Financial performance of Unipetrol's Paramo subsidiary was very weak in the second quarter,

driven by poor sales of bitumen products and base oils.

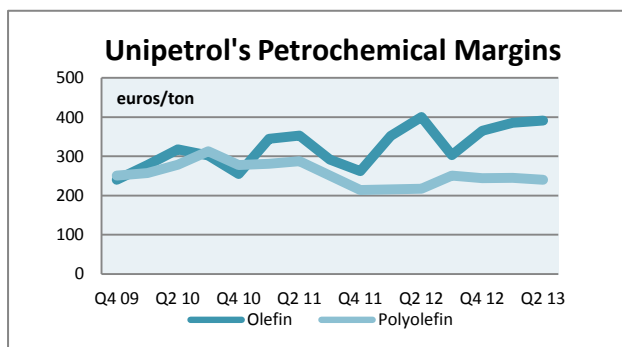
In the refinery division Unipetrol processed 903,000 tons in the second quarter this year, which was 11% down on 2012. This was mainly due to the unplanned Kralupy refinery shutdown at the turn of May and June. The nominal refinery utilisation ratio stayed flat at 80% in Q2. The refinery division recorded an EBITDA of Kc 151 million in Q2 mainly due to lower refining margins and lost sales volumes due to the Kralupy refinery shutdown.

On the positive side Unipetrol managed to sign a pipeline transportation contract in the second quarter with the Slovak national operator Transpetrol. This was achieved through the jv Ceska rafinerska in which Unipetrol has a 51.22% shareholding. The contract determines new tariffs for crude oil transportation into the Czech Republic through the Slovak branch of the Druzhba pipeline for the remainder of 2013 and establishes the basis for further negotiation. The contract terms implies significant savings for Unipetrol compared with 2012, estimated at around Kc 45 million.

The second positive issue is the first long-term contract for Russian crude oil (REBCO) deliveries, which was signed between PKN Orlen, on behalf of Unipetrol, and Rosneft. The agreement was signed on 21 June and is valid from 1 July 2013 to 30 June 2016.

The contracted volumes could cover from 60% to 100% of Unipetrol's total demand for REBCO crude. This will depend on the economics of the contracted deliveries relative to the conditions prevailing on the crude oil market at a given time. The maximum volume of crude to be delivered to Unipetrol has been set as 8.28

million tons. Unipetrol encountered supply chain difficulties last year, and hopes this agreement will provide the security required by the group.



#### Unipetrol's petrochemical division, Jan-Jun 2013

The EBITDA from Unipetrol's petrochemical division increased from Kc 761 million in the first half in 2012 to Kc 1.410 million in 2013. The improvement was driven mainly by improved petrochemical margins. The model combined petrochemical margin increased by 12% from €566 per ton to €632 per ton in the first half of 2013.

Higher sales of polymers this year has also been a positive factor, although overall sales volumes in the petrochemical division were lower by 7% and dropped

from 851,000 tons to 792,000 tons in 2013. Profitability of the petrochemical division in the first half of 2013 was offset to an extent by higher renewable surcharges and CO2 allowances. Another factor included the closure of the old power plant at Litvinov.

For the second half of 2013 Unipetrol expects the petrochemical division to remain stable. Prospects for the refining sector are less promising. The key issue for the group in the second half in 2013 is the planned Kralupy refinery turnaround in September and October following the four year turnaround cycle. During this turnaround a complete shutdown and maintenance of the entire operations will be executed. Capital expenditures for this project are estimated at Kc 600 million. The Kralupy refinery belongs to Ceska rafinerska. Regarding investments within the petrochemical division, Unipetrol is focusing on the reconstruction of the pyrolysis furnace BA-101 and substation R200. Evaluations are in process regarding new investments in polyolefin facilities.

<b>MOL's Olefin &amp; Polyolefin Production, Including TVK &amp; Slovnaft (unit-kilo tons)</b>		
<b>Product</b>	<b>Jan-Jun 13</b>	<b>Jan-Jun 12</b>
Ethylene	327	305
Propylene	167	160
<b>Product</b>	<b>Jan-Jun 13</b>	<b>Jan-Jun 12</b>
LDPE	64	78
HDPE	237	153
PP	196	219

#### MOL-TVK, Jan-Jun 2013

The MOL Group generated an EBITDA of Ft 112 billion in the second quarter, 21% below the first quarter this year. The lower result is mainly attributable to weaker upstream contribution, whilst the downstream and gas midstream delivered flattish results.

The MOL Group generated Ft 238 billion in operating cash-flow in Q2 2013, a 47% increase against the same quarter in 2012 in the upstream division. Lower crude oil prices and lower hydrocarbon

production affected performance. MOL achieved a significant milestone in its Kurdistan operations when the regional government approved the Shaikan Block Field Development plan. These barrels will really help MOL to counterbalance the decline of matured fields.

Operating profit, excluding special items, dropped to Ft 22.5 billion from Ft 62 billion in the first quarter but beat the Ft 19.2 billion in the second quarter of last year.

MOL's most important petrochemical producer TVK experienced a positive second quarter with olefin-polymer feedstock and commodity prices performing well in relation production and sales volumes. The company also used less energy helping to reduce costs.

The industry environment during the quarter was positive overall enabling TVK to improve its EBITDA. Feedstocks in the form of naphtha and gas oil were lower helping margins for polymers. Moreover, the dollar exchange rate weakened which helped the costs of raw materials bought by TVK.

The capacity utilisation rate for TVK was 80.8% in the second quarter this year, which was about 2.1% higher than in Q2 2012. Although the

<b>TVK's Sales' Revenues (Ft million)</b>		
<b>Exports</b>	<b>Jan-Jun 13</b>	<b>Jan-Jun 12</b>
Olefin	4,849	13,377
LDPE	56	6,789
HDPE	63,316	50,544
PP	26,929	26,756
<b>Domestic</b>	<b>Jan-Jun 13</b>	<b>Jan-Jun 12</b>
Olefin	66,275	62,652
LDPE	2,414	5,266
HDPE	6,274	6,119
PP	21,551	22,662
<b>Total Sales</b>	<b>Jan-Jun 13</b>	<b>Jan-Jun 12</b>
Olefin	71,124	76,029
LDPE	2,470	12,055
HDPE	69,590	56,663
PP	48,480	49,418
<b>Total</b>	<b>191,664</b>	<b>194,165</b>



company's profitability improved in the second quarter this should not disguise the fact that demand for polymers remains lacklustre.

TVK's operating profit totalled Ft 6.2 billion in the first half of 2013 which was Ft 11.2 million up on 2012. The higher profits were due to an improving integrated petrochemical margin and higher production and sales volumes. The integrated petrochemical margin grew by 31% due to the lower quoted naphtha price. In Q2 2012, TVK undertook a maintenance shutdown at most plants, but in the first half of 2013 the only plant affected by repairs was the LDPE-2 plant. This has since been restored to full production. Polymer production increased by 1% in the second quarter, while polymer sales were higher by 5% against Q2 2012.

Ethylene sales from Tiszaújváros increased 21% in the first half of the year due to increased demand from BorsodChem, and this subsequently reduced ethylene exports. BorsodChem increased its ethylene offtake in line with TVK's long term supply contract that was signed in May 2012 for a period of ten years.

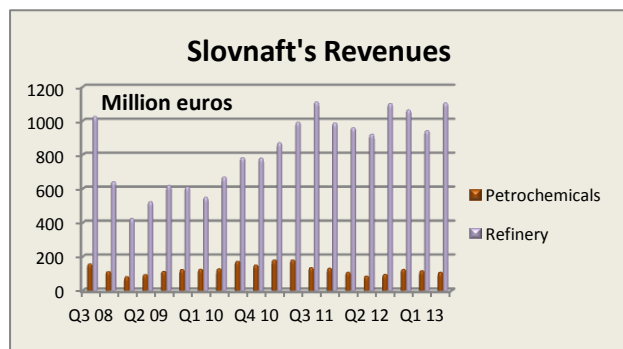
#### TVK-butadiene project

In terms of investments TVK is working on the construction of a butadiene extraction plant which is scheduled to start in June 2015, if not earlier in the year. The contractor (Lurgi/OTF consortium) has prepared and submitted the basic engineering package, which was approved and the preparation of the detailed design is currently ongoing. The tender for several key pieces of plant equipment have already been closed, whilst the procurement of other equipment is in progress. The start of the site mobilisation is expected in September. As part of the project the construction of the C4/C5 separation unit has started.

The capacity of the butadiene plant at Tiszaújváros is being designed to produce 130,000 tpa. The C4/C5 separation plant is being constructed at TVK's Olefin-2 unit. In addition to the extraction of butadiene, TVK is investigating opportunities on possibilities in the synthetic-rubber business. This year C4 sales have been down due to a weaker environment in the tyre industry.

#### Slovnaft Q2 2013

Slovnaft managed to increase sales of petroleum products in the first half by 18% to 2.92 million tons, of which nearly 77% was exported. Sales in foreign markets increased by 27% to 2.24 million tons, despite the problems with deliveries in the second quarter due to the high water levels on the Danube.

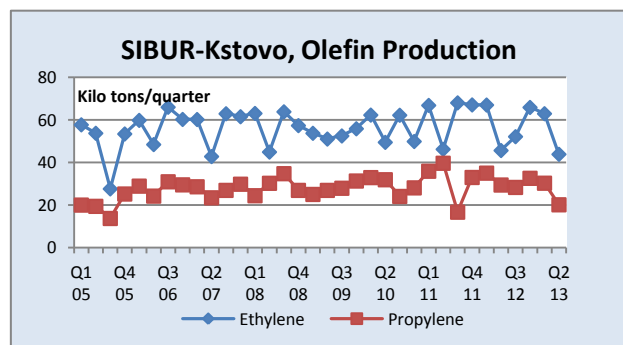


Slovnaft's average petrochemical margin increased by 42% in the second quarter and achieved the level of €269/ton due to lower naphtha prices. In the first half of 2013 the Slovnaft Group achieved total refinery and petrochemical sales of €2.33 billion. Refinery throughput at the Bratislava refinery totalled 2.86 million tons, which was 9% higher than last year. Slovnaft recorded an increase in the production of petrochemical products in the first half by 12% to 156,000 tons.

In Q2 2013, the capital expenditures of the Slovnaft Group represented €21.0 million, lower by €42.7 million against 2012. Capital expenditures to HSE projects were higher by €2.6 million. Projects were focused to fulfil environmental requirements of Slovak legislation at storage, loading and discharging of aromatics. Investments in petrochemical division were lower by €2.1 million as a result of changed scheduler of work. In 2013 Investments in petrochemical division are focused on ethylene unit reconstruction and construction of the new production unit LDPE 4.

## RUSSIA

## Petrochemical Projects

**SIBUR-Kstovo, ethylene project completion**

SIBUR expects to start tests on the Kstovo cracker this year following modernisation, which raises capacity from the original 300,000 tpa to 360,000 tpa. Although the EP-300 cracker was designed to produce 300,000 tpa of ethylene, the plant has until now not operated at anywhere near full capacity and effectively 260,000 tpa has been the maximum capability.

In the past decade the largest quarterly production volumes for ethylene and propylene have been 67,100 tons and 35,100 tons respectively, and this was achieved in the first quarter in 2012. Around 8.8 billion roubles have been invested in the modernisation of the Kstovo cracker which together with RusVinyl will form the basis for the cluster being planned in the area. The next stage in the modernisation process for Kstovo will comprise the further expansion, increasing from 360,000 tpa to either 430,000 or 450,000 tpa.

**Combined Production at Rosneft's Gas Processing Plants in the Samara Region Otradny and Neftegorsk**

Year	Product	Volume
2009	Associated Gas, million m3	726
	SHFLU, 000 tons	414
	Ethane, 000 tons	68
2010	Associated Gas, million m3	755
	SHFLU, 000 tons	389
	Ethane, 000 tons	100,5
2011	Associated Gas, million m3	794
	SHFLU, 000 tons	437,6
	Ethane, 000 tons	100,2
2012	Associated Gas, million m3	770,8
	SHFLU, 000 tons	398,6
	Ethane, 000 tons	91,7

**SANORS-Rosneft JV**

SANORS' large-scale plans for investment in the petrochemical industry face probably the biggest challenge in relation to feedstocks and for this reason the group has signed an agreement with Rosneft for a joint venture in gas processing. The purpose of the JV is to construct a new petrochemical complex in the Samara region, focused on polymers and other chemicals. The parties intend to develop the details of the JV and sign legally binding documents by the end of 2013. SANORS has also been in talks with Linde regarding pyrolysis technology based on gas and liquid raw materials.

SANORS is working on a number of investments into new facilities and the modification of existing units over the next few years. This ranges from intermediates such as MMA to petrochemical feedstocks. In October 2012, SANORS commissioned the world's largest plant for the production of TAME with a capacity of 300,000 tpa.

The largest of the possible projects concerns a one million tpa cracker, which could be based on foundations of

**Novy Urengoy-Sberbank agreement**

Novy Urengoy Gas Chemical Complex (NGHK) has selected Sberbank (Russia) and Sberbank (Switzerland) to provide a four year loan for €225 million. NGHK has also announced a tender for a five year loan for \$300 million maximum rate at LIBOR +4.15% per annum.

NGHK is the most well known of Gazprom's unfinished projects. The decision to create it was made in 1993. All of the equipment was imported, but since 1996 installation has been suspended and restarted on countless occasions due to a lack of finance. The project regularly attracts loans for the completion of the complex and borrowed \$1.1 billion in 2012 from banks such as BofA, WestLB, HSBC, and RBS. Despite advice to scrap the project on financial and market grounds, Gazprom is intent on completing construction.

present.

the existing unit where in Soviet times the construction of an EP 300 complex was not completed. SANORS sees Novokuibyshevsk as the most convenient location for establishing a one million tpa cracker. In addition to gas liquid feedstocks SANORS believes that it would also be able to connect to Transneft's pipeline in order to receive up to 5 million tpa of crude.

Despite the willingness of the two groups to cooperate a number of issues remain unresolved, such as what assets could be transferred to the JV and how closely does Rosneft want to move close to petrochemicals. The key asset of the SANORS holding is Novokuibyshevsk Petrochemical Company which has facilities for the fractionation of natural gas liquids, where capacity is being expanded to 400,000 tpa at

**Stavrolen 2012**

After the Budyennovsk petrochemical complex was mostly idle until September last year Stavrolen recorded a net loss of 3.548 billion roubles in 2012 against a profit of 4.2 billion roubles in 2011. The company's revenue fell by 2.6 times in 2012 to 9.441 billion roubles. Due to lower usage of raw materials the costs of production decreased by 1.8 times in 2012 against 2011 to 10.387 billion roubles, while gross profit fell by 6.2 times to 5.892 billion roubles.

**Angarsk Polymer Plant 2012**

Angarsk Polymer Plant produced 521,900 tons of saleable products in 2012, 3.5% less than in 2011. The plant significantly reduced the production of HDPE by 29.3%, to 40,700 tons and benzene by 10.8% to 50,600 tons. Production of C4 fractions fell by 1.6% to 65,800 tons and propylene fell by 0.5% to 105,100 tons. At the same time, Angarsk Polymer Plant increased ethylene production by 9.2% to 137,600 tons. Production of polystyrene also showed a rise of 1.5% to 13,400 tons whilst styrene increased by 6.7% and amounted to 20,700 tons. The company processed 615,632 tons of raw materials (mainly naphtha) in 2012, 1.1% lower than 2011. Processing of liquefied petroleum gas decreased by 15.5% to 90,330 tons.

Investment in Angarsk Polymer Plant (included in Rosneft) in 2013 will amount to 4.571 billion roubles, 2.2 times more than in 2012. 3.382 billion roubles will be spent on modernisation and another 287,655,000 roubles to retool. Rosneft has stated that it wishes to invest heavily in the expansion of facilities at Angarsk, but these intentions are yet to be specified.

Angarsk Polymer Plant has the capacity to produce 200,000 tpa of ethylene, 100,000 tpa of propylene, and 60,000 tpa of benzene. The main part of the ethylene produced by the plant is used for the production of polyethylene, styrene and polystyrene. The plant also supplies ethylene to Sayanskkhimpast for PVC production.

**Omskneftekhimproekt wins contract at Tobolsk-Neftekhim for expansion of gas processing**

Omskneftekhimproekt won a contract for the construction of the new gas processing facilities at Tobolsk which is part of the expansion in capacity to 5.8 million tpa and eventually 6.6 million. Omskneftekhimproekt has been able to offer Tobolsk-Neftekhim the best technical solutions, ensuring strict adherence to deadlines of the project. The project will facilitate an 80% increase in the volume of processing of natural gas liquids, and will open opportunities for Tobolsk-Neftekhim to expand the range of our petrochemical products. Omskneftekhimproekt is also working on the aromatics complex at Atyrau in Kazakhstan.

Tobolsk-Neftekhim achieved the threshold of 60 million tons of natural gas liquids in June, processed since start-up of the central gas fractionation plant (TSGFU) in December 1984. The plant produced 338,000 tons of NGLs in May, which is the highest level on the plant's record. The expansion to 6.6 million tpa represents a key part in the operations of the new Zapsibneftekhim petrochemical complex which is under construction at Tobolsk.

**Bashneft-United Petrochemical Company**

Bashneft has received 100% shares in United Petrochemical Company, by buying 25% of the structure from former head of SIBUR Yakov Goldovsky. This means that Bashneft has completed the consolidation begun in February based on petrochemical assets belonging to United Petrochemical Company. Bashneft acquired 100% of Tuimazinskoye gas processing plant, Shkapovskoe gas processing plant and created Bisphenol A Ltd. The purpose of the consolidation of petrochemical assets Bashneft under the United

Petrochemical Company is the development of this area as a separate business. AFK System is planning to buy out Bashneft 100% of the PMC. The transaction is expected to be completed in September and October this year.

---

**Petrochemical Markets & Company Performance**


---

**Russian Ethylene Production  
(unit-kilo tons)**

<b>Producer</b>	<b>Jan-Jun 13</b>	<b>Jan-Jun 12</b>
Angarsk Polymer Plant	115.4	101.6
Kazanorgsintez	263.0	244.9
Stavrolen	168.2	0.0
Nizhnekamskneftekhim	318.6	320.1
SANORS	40.6	34.0
Gazprom N Salavat	148.4	124.9
SIBUR-Kstovo	107.0	112.8
SIBUR-Khimprom	25.8	23.0
Tomskneftekhim	137.3	133.7
Ufaorgsintez	63.4	47.1
Total	1387.6	1142.0

**Russian ethylene production, Jan-Jun 2013**

Russian ethylene production rose by 245,000 tons in the first half of 2013 against the same period in 2012 and totalled 1.388 million tons. Although the restart of the Stavrolen plant at Budyennovsk was the main cause of the rise in production, several other plants also recorded marginal increases over 2012. Kazanorgsintez was able to increase utilisation due mainly to access to higher volumes of ethane from both Orenburg and Minnibayevo. Gazprom Neftekhim Salavat is gradually expanding utilisation levels as part of ongoing modernisation and expansion of capacity to 380,000 tpa.

SIBUR-Kstovo is close to completion of the first stage of its modernisation project which will raise capacity to 360,000 initially, before being raised to 430,000 tpa. Full plant capacity and production data for Russian ethylene production, shown by quarter back to 2005, is available on CIREC's Statistical Database

at [www.cirec.net](http://www.cirec.net).

Russian ethylene production amounted to 216,000 tons in June, 7% down on May due to largely to maintenance work. Of the producers, Gazprom Neftekhim Salavat reduced production by 17% to 21,800 tons, SIBUR-Kstovo 5.8 times to 3,400 tons and SIBUR-Khimprom by 9% to 4,200 tons. By contrast Kazanorgsintez increased production by 31% to 46,500 tons. Kazanorgsintez conducted most of its maintenance work in May. Maintenance

Russian LPG Production (unit-kilo tons)		
Company	Jan-Jun 13	Jan-Jun 12
SIBUR	1,837.0	1,781.8
LUKoil	637.0	635.1
Nizhnekamskneftekhim	596.3	563.6
Surgutneftegaz	309.9	221.4
Gazprom	1,306.0	1,309.9
Gazprom Neft	245.6	233.2
Tatneft	201.3	185.7
Bashneft	218.6	132.1
Rosneft	122.9	115.7
TNK-BP	151.6	107.2
Slavneft	113.9	112.2
TAIF-NK	95.1	97.1
Others	228.8	296.7
Total	6064	5,791.8

#### Russian naphtha, Jan-Jul 2013

Naphtha shipments in the domestic market increased 7% in July over June to 149,800 tons. The increase in shipments was due to increased consumption of naphtha by petrochemical producers, rising 8% to 83,000 tons. Due to reduced purchases of gas liquids Stavrolen increased naphtha shipments by 23% to 56,000 tons. SIBUR-Kstovo increased purchases by 29% to 7,600 tons whilst Tomsneftekhim dropped shipments by 25% due to planned maintenance in July. A total of 1.180 million tons of naphtha was supplied to the domestic market in the first seven months in 2013, 35% up on the same period last year.

#### SIBUR starts naphtha deliveries from Ust Luga

SIBUR in July began test shipments of naphtha from a terminal at Ust-Luga and plans to put the terminal into full operation later this year. The first shipment of 4,300 tons of naphtha was sent by Thun Granite Tanker to the area Amsterdam-Rotterdam-Antwerp. Testing is expected to continue to the autumn.

In June SIBUR started shipments of LPG through the terminal for LPG and light oil in Ust-Luga. Investment in the construction of the terminal amounted to about 25 billion roubles. Throughput of the complex allows for handling up to 1.5 million tpa of LPG (up to 1.1 million tpa of LPG under refrigeration and up to 0.4 million tpa of LPG under pressure) and up to 2.5 million tpa of light oil.

#### Russian propylene production, Jan-Jun 2013

Russian propylene production has been boosted this year not only by the restart of the Stavrolen plant, but also the start of production of propylene at the Omsk polypropylene plant Polyom. By contrast to Polyom, the adjacent Omsk Kaucuk unit has reduced production this year.

Russian propylene production dropped 10% in June against May to 117,300 tons in June. Due to scheduled maintenance work, undertaken by SIBUR-Kstovo, propylene production dropped by 8.9 times to 1,000 tons. In addition, Gazprom Neftekhim Salavat reduced monomer production by 22% to 7,500 tons, and the Omsk polypropylene plant by 18%, to 14,300 tons. SIBUR-Khimprom increased its production by 33% to 7,500 tons.

In the first half of 2013, Russian propylene production rose 20% against last year to 749,300 tons. LUKoil-NNOS increased production by 20% and Ufaorgsintez by 15%. Availability is expected to be restricted in the third quarter by a shutdown at Angarsk Polymer Plant from 25 July to 11 September. If SIBUR and LUKoil concentrate supply on their own subsidiaries during this period, other merchant buyers could be forced to import monomer or purchase propane-propylene fractions.

Sales of propylene on the domestic market amounted to 26,900 tons in July, 46% higher than June. The completion of maintenance at SIBUR-Kstovo allowed shipments from the plant to rise 7.3 times against June to 8,900 tons. Angarsk Polymer Plant increased sales by 44% to 6,600 tons due to increasing demand by Omsk Kaucuk. For the first seven months in 2013 Russian domestic sales of propylene amounted to 189,400 tons, 9% down on 2012. The main reason for lower propylene shipments this year is the termination of

Russian Propylene Production (unit-kilo tons)		
Producer	Jan-Jun 13	Jan-Jun 12
Angarsk Polymer Plant	60.9	57.6
Kazanorgsintez	21.3	19.6
LUKoil-NNOS	78.1	72.0
Stavrolen	65.0	0.0
Nizhnekamskneftekhim	156.6	160.7
Omsk Kaucuk	31.2	45.8
Polyom	46.7	0.0
Gazprom N Salavat	57.1	52.6
SIBUR Kstovo	50.6	64.6
SIBUR-Khimprom	31.4	30.6
Tomsneftekhim	70.1	69.4
Ufaorgsintez	80.3	69.7
Total	749.3	642.6



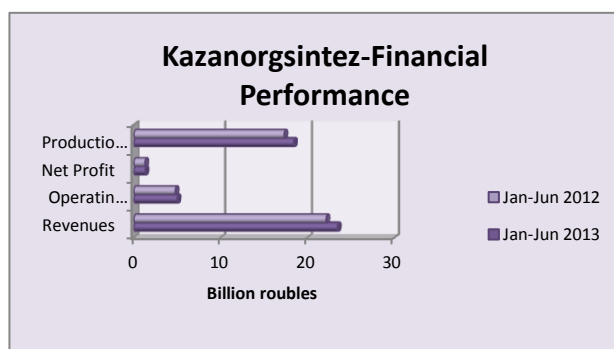
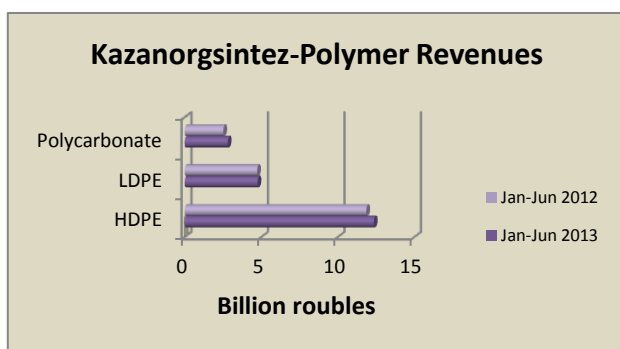
supplies from Omsk Kaucuk in the spring. Sales of propane-propylene fractions on the Russian domestic market in July were mostly unchanged at 98,900 tons for the first seven months this year.

Russian Styrene Production (unit-kilo tons)		
Producer	Jan-Jun 13	Jan-Jun 12
Nizhnekamskneftekhim	117.6	93.4
Angarsk Polymer Plant	19.0	18.4
SIBUR-Khimprom	54.1	54.9
Gazprom N Salavat	97.8	75.1
Plastik, Uzlovaya	32.9	33.2
Total	321.3	275.0

#### Russian styrene supply, Jan-Jun 2013

Styrene production rose from 275,000 tons in the first half of 2012 to 321,300 tons in the same period in 2013. All but one of the five producers increased production in the first half of 2013. Gazprom Neftekhim Salavat stopped styrene production for maintenance in July, whilst other outages at Angarsk Polymer Plant and SIBUR-Khimprom started in August. Pidgy Prof (the largest consumer of commercial styrene) also plans to stop the production of polystyrene in August and thus demand for styrene will remain low until September.

Styrene sales on the domestic market totalled 6,600 tons in July, 12% down on June. SIBUR plants Plastik and SIBUR-Khimprom reduced shipments by 42% and 36% respectively, to 1,300 tons and 1,100 tons. For the first seven months of 2013 a total of 57,600 tons of styrene was shipped to the domestic market, 13% up on last year. Pidgy Prof (Penoplex group) at Kirishi accounted for 53% of total purchases on the merchant market.



#### Kazanorgsintez, Jan-Jun 2013

Kazanorgsintez increased net profit in January-June 2013 by 1.8% to 1.368 billion roubles. Revenues amounted to 23.514 billion roubles, having increased by 5.9% against 2012. The cost of production increased by 6.3% up to 18.465 billion roubles. Gross profit increased by 4.5% up to 5.049 billion roubles, profit from sales by 3.6%, to 3.27 billion roubles, whilst profit before tax rose by 4.9%, to 1.77 billion.

In terms of raw materials, ethane and benzene saw price rises of 9% and 26% respectively in the first half of this year against 2013. At the same time price falls were recorded for ethylene 5%, propane-butane 7% and propane-propylene fractions 21%.

Kazanorgsintez reduced the amount of long-term loans by 11.6% to 19.119 billion roubles, but increased its short-term debt by 10% to 1.673 billion roubles. Gazprombank believes that the stock of Nizhnekamskneftekhim is undervalued relative to Kazanorgsintez. The ratio between EBIDTA and debt load is lower for Nizhnekamskneftekhim and revenues are higher.



#### Nizhnekamskneftekhim, Jan-Jun 2013

Revenues for Nizhnekamskneftekhim dropped in the first half of 2013 to 59.6 billion roubles against 65.5 billion roubles in the same period last year. The main cause of the lower revenues and subsequent profits has been the decline in income from synthetic rubber sales due mainly to the weakness in the global tyre markets.

Organic chemical sales were also down marginally in the first half of 2013 whilst revenues from plastics showed an increase. Nizhnekamskneftekhim reduced its net profit by 43.1% in the first half of 2013 compared to the same period last year to 6.007 billion roubles. Costs were lower by 6.3%, amounting to 46.480 billion roubles, whilst gross profit decreased by 17.3% to 13.094 billion roubles.

**Main Products Imported by China from Russia (unit-kilo tons)**

Product	Jan-Jun 13	Jan-Jun 12
HDPE	7.1	0.2
LDPE	20.1	49.7
n-butanol	51.2	43.3
iso-butanols	42.4	40.8
PVC	0.6	0.1
Phthalic Anhydride	12.7	10.3
2-EH	1.1	7.8
PP	2.0	6.2
Acrylonitrile	0.0	14.6
Caprolactam	54.4	101.0
Polycarbonate	9.1	11.7
Styrene	4.6	6.1
Orthoxylene	0.0	2.9
Paraxylene	7.2	0.0
Phenol	0.0	0.7
Acetone	9.5	3.5
Epichlorohydrin	0.0	0.0
Bisphenol A	16.4	18.0
Methacrylic Acid	0.0	2.0
Polyamide	20.3	17.5

The long-term development programme for Nizhnekamskneftekhim is based heavily around the 1 million tpa cracker which is in the early stages of construction. Using advanced technology, based on mostly imported equipment, Nizhnekamskneftekhim aims to become a major player in polyolefins in the Russian market.

The Ministry of Industry and Trade of the Russian Federation has proposed to exempt Nizhnekamskneftekhim from VAT on petrochemical equipment purchases. This includes equipment required for the installation of a general purpose polystyrene plant with a capacity of 50,000 tpa, which is being undertaken by Toyo. Other projects expected to benefit from the VAT exemption include the alpha olefins plant under construction by Linde. As a result of these measures Nizhnekamskneftekhim has estimated cost reductions of 370.1 million roubles.

---

### Bulk Polymers

---

#### Nizhnekamskneftekhim-polyolefin projects

Russian engineering centre NIPIgaspererabotka (part of SIBUR) has started to develop a set of design documents for the production of polyolefins for Nizhnekamskneftekhim. The new complex will bring together three plants including 300,000 tpa of HDPE, 300,000 tpa of LDPE and 400,000 tpa of

polypropylene. Advanced basic design process units will be performed by Tecnimont. Under the contract, NIPIgaspererabotka as separate sections for FEED documentation and project documentation throughout the facility. Also, NIPIgaspererabotka will develop specific technical specifications for design, will provide advice and support for project documentation in passing state examination.

#### Biaksplen close to start-up of BOPP plant at Tomskneftekhim

Biaksplen (part of SIBUR) has completed the mechanical assembly of BOPP plant at Tomskneftekhim. Commissioning may start in the near future. Construction of the plant has cost a total of 2.4 billion roubles and the capacity has been designed to produce 38,000 tpa. Production of BOPP film at Tomsk will meet the needs of markets Siberian, Ural federal districts, Kazakhstan and Uzbekistan.

Project documentation for the production of polyolefins is expected to be ready in the spring of 2014. In 2012 Nizhnekamskneftekhim signed an agreement with Lummus for the new ethylene complex with a capacity of 1 million tpa. Other licenses were signed with Ineos for polyethylene (600,000 tpa) and Basell polypropylene (400,000 tpa).

#### Gazprom Neft & SIBUR apply to buy Polyom

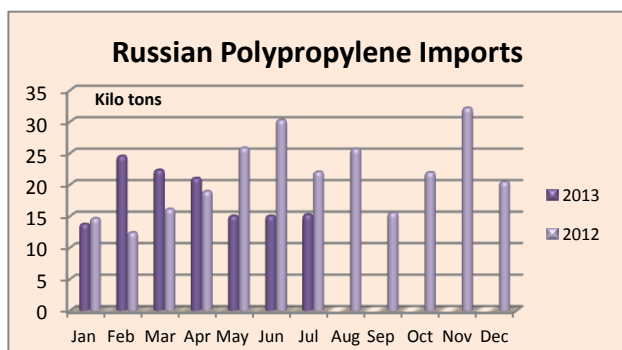
Gazprom Neft and SIBUR have applied to the Federal Antimonopoly Service of Russia with a request to purchase the Omsk plant of polypropylene managed by Polyom. After

starting production at the end of the first quarter Polyom started to achieve maximum loading of 22.5 tons of polypropylene per hour in May. The plant now ships 600-700 tons per day to both domestic and export customers. Polyom can produce about 100 grades of polypropylene, based on Spheripol technology from LyondellBasell Industries.

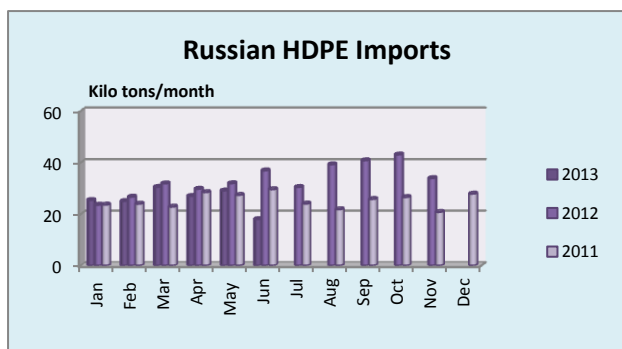
Polyom reports that it has signed more than 100 contracts for the supply of polypropylene in different regions of Russia. Export destinations include Ukraine, Uzbekistan, Kazakhstan, Lithuania, Finland, Serbia, Bulgaria, China, Vietnam and Turkey. Polypropylene grades produced at the plant comply with technical conditions such as the melt flow rate, the modulus of elasticity in bending, etc. Production capacity at Omsk is 180,000 tpa of polypropylene, based on LyondellBasell technology. At present the company produces 40 different grades of homopolymer.

#### Tobolsk-Polymer to start production by end of August

The polypropylene project at Tobolsk-Polymer is approaching completion, and start-up has been scheduled for 28 August. This will be the first Russian polypropylene to produce propylene by dehydrogenation and it will also be the largest plant operating in the country. The new polypropylene plant is located in the industrial area next to the existing production faculties for Tobolsk-Neftekhim. In addition, the system of environmental security was been laid in the design of complex in the 1960s under Soviet planning.



much stronger after the start-up of the Tobolsk plant. Despite these developments the market for propylene copolymers is still largely dependent on imports. Imports of other copolymers amounted to 3,100 tons in July, 11% up on June. At the same time, exports of homopolymer amounted to 11,000 tons in July.



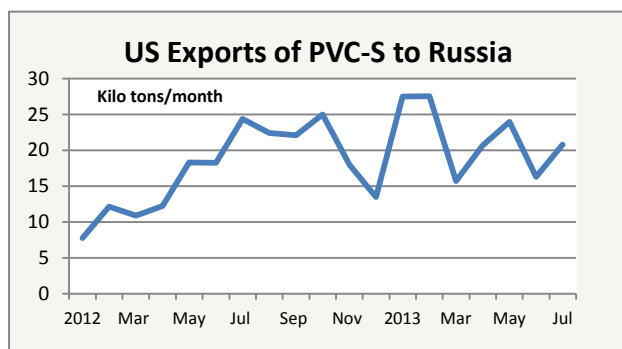
#### Russian polypropylene imports, Jan-Jul 2013

Polypropylene imports into Russia are starting to fall as new capacity starts to take effect. Imports totalled 125,700 tons in the period January to July 2013, which is 22% lower than in 2012. Volumes in 2012 were slightly higher than 2011 due to the Stavrolen outage, but this year the Budyennovsk plant has run at full capacity reducing the need for imports.

Mainly due to the start-up of the Omsk plant the Russian market has started to become a net exporter of homopolymer. The net export position will become

#### Russian HDPE imports, Jan-Jun 2013

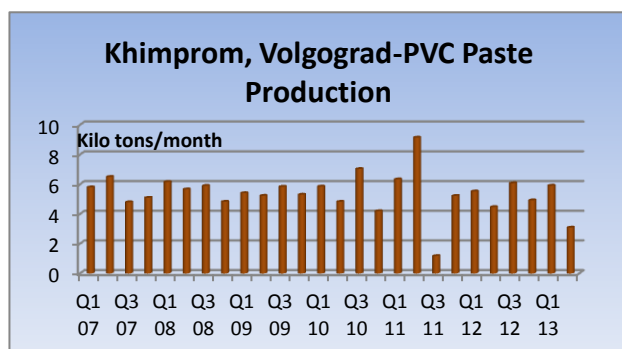
HDPE imports in the first half of the year amounted to 155,000 tons, 12% down on the same period last year. Most of the reduction in imports was recorded for HDPE film which fell 48% in the first half year to 25,800 tons. Import of HDPE pipe in the first half of the year amounted to 40,000 tons, which was 16% less than 2012. HDPE blow grade fell by 17% against 2012 and amounted to 17,600 tons. By contrast imports of HDPE and LDPE injection grade for anti-corrosion large diameter steel pipes rose by 19% and 33%, respectively, totalling 22,200 tons and 39,200 tons.



week shutdown in the first half of August. Imports in July amounted to 34,500 tons which was 10% down on June.

#### Russian PVC imports, Jan-Jul 2013

PVC imports into Russia for the period January to July 2013 amounted to 281,000 tons, 26% up on the same period last year. The trend has been lower in recent months due to factors such as stable domestic production. Imports from China have been affected lately by higher prices. US shipments remain stable, but reductions might be expected in September and October as exchange rate factors between the dollar and the rouble take effect. Another factor is that Sayanskkhimplast, Russia's largest PVC producer, should be operating normally after undertaking a two



#### Khimprom-PVC paste

Russia's sole PVC paste producer Khimprom at Volgograd was forced to stop production in July due to a collapsed roof. The plant was expected to restart late August. An ongoing issue in recent months has been steam supply interruptions and as a result Khimprom has directed more than 20 million roubles to repair the Volgograd hydroelectric power station (VolgoGRES, which is part of LUKoil-Volgograd Energo). It is planned to repair small boiler unit N4 and feed pumps, large boiler N9, cooling towers, turbines and other equipment at VolgoGRES.

Due to the problems at the power station the supply of steam has been limited to Khimprom to around a third of required amount. This has led to Khimprom being forced to generate steam for the production needs of its own three boilers with total capacity of 60-70 tons of steam per hour. The Volgograd hydroelectric power station has

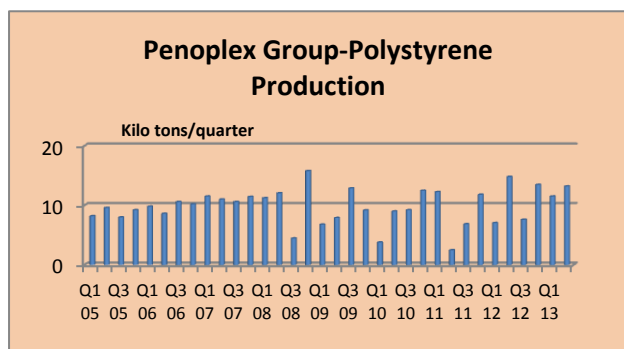
reduced the supply of industrial steam Khimprom from 80 to 20 tons per hour. The Federal Agency for Federal Property Management owns 51% of the share capital of Khimprom, whilst about 35% of the shares of the company remain with Renova Orgsintez (renamed Group Orgsintez).

### Russian PET market, Jan-Jun 2013

Russian sales of PET granulate in the domestic market in the first half of 2013 increased by 10% compared to the same period last year. In January-June, Russia sold 217,300 tons of domestic production of pellets with a total volume of production equal to 230,700 tons. 13,000 tons were exported. The market capacity of PET in Russia in January-June 2013 increased by 1.3%. Total for the reporting period, the consumption of PET in Russia amounted to 307,600 tons.

### Penoplex completes expansion

Penoplex has been expanding rapidly in recent months, beginning the production of insulation boards 150 mm thick at its production site at Taganrog in July. Penoplex has also completed work to increase production capacity at the plant for the production of thermal insulating materials of extruded polystyrene foam at Kirishi (Leningrad region), resulting in a capacity increase of up to 2.5 million cubic metres per annum. The first batch of thermal insulation, produced on the new equipment, has been made available and the new line is running in test mode.



In addition, Penoplex operates its own production plant for polystyrene at Kirishi through its subsidiary Pidgy Prof. Plant capacity of general purpose polystyrene stands at 50,000 tpa, and production started in 2003.

In addition, at the end of June Penoplex launched a plant in Novomoskovsk worth 400 million roubles. Production capacity at Novomoskovsk is designed to produce up to 650,000 cubic metres per annum of insulation. Penoplex is a manufacturer of insulation materials from extruded polystyrene (Penoplex). At present, the company has seven operating plants at Kirishi, Taganrog, Novosibirsk, Perm, Khabarovsk, Chermkhovo (Irkutsk Region), and Kazakhstan. In

### Russian Benzene Production (unit-kilo tons)

Producer	Jan-Jun 13	Jan-Jun 12
Altay-Koks	0.0	13.5
Angarsk Polymer Plant	46.5	43.5
Chelyabinsk MK	7.1	9.8
Gazprom Neft	63.6	44.3
Koks	0.0	10.1
LUKoil-Neftekhim	11.9	0.0
LUKoil-Permnefteorgsintez	24.2	17.5
Magnitogorsk MK	31.6	33.3
Nizhnekamskneftekhim	102.1	96.4
Novolipetsk MK	19.3	9.4
Gazprom Neftekhim Salavat	72.6	48.8
Severstal	18.7	18.4
SIBUR Kstovo	37.5	29.2
Slavneft-Yaroslavlorgsintez	27.1	32.3
Surgutneftegaz	30.0	34.7
TNK-BP	15.9	19.0
Ufaneftekhim	42.2	41.5
Ural Steel	2.6	3.6
Uralorgsintez	34.0	35.2
Zapsib	29.0	30.8
Others	5.4	6.1
Total	621.3	577.3

### Aromatics

#### Russian benzene market, Jan-Jun 2013

Russian benzene production amounted to 99,900 tons in June, against 110,000 tons in May. The main reason for decline in domestic production was the outage at SIBUR-Kstovo where output declined 35.2 times in June to 210 tons. In addition, Gazprom Neftekhim Salavat reduced benzene production by 24% to 11,800 tons and Uralorgsintez reduced by 16% to 5,500 tons.

By contrast, the Ryazan refinery increased the production of benzene after maintenance by 3.6 times to 3,700 tons. In the first half of 2013 benzene production totalled 621,300 tons against 577,300 tons in the same period last year. The increase is largely attributed to the increase in production by Gazprom Neftekhim Salavat and the restart of the Stavrolen plant in May this year.

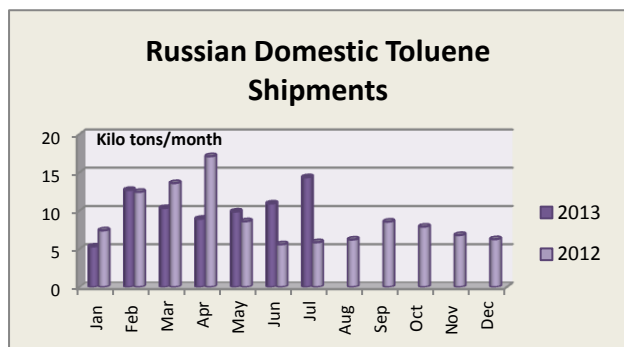
Consumption of free market benzene in Russia is dominated by caprolactam; for example in July shipments to the three caprolactam producers accounted for 45% of the total benzene delivered to the domestic market. Phenol ranks second, accounting for 19% of shipments in July. Ufaorgsintez is the only phenol producer not to purchase benzene on the open market. The other producers Omsk Kaucuk, Kazanorgsintez and Samaraorgsintez all require to purchase free market product. Other benzene purchases are



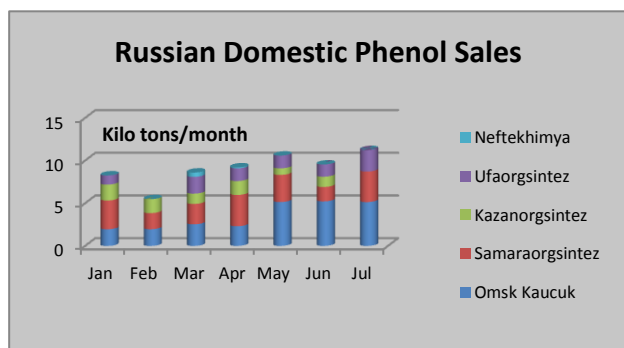
made by a wide range of consumers, including styrene producers Nizhnekamskneftekhim, SIBUR-Khimprom and Gazprom Neftekhim Salavat that need to supplement their own production. Smaller purchases are made by gasoline producers and other benzene derivative producers such as Promsintez for nitrobenzene and the Sverdlov Plant for alkylbenzene and small quantities of nitrobenzene.

### Benzene sales-Russia, July 2013

Sales of benzene on the Russian market in July amounted to 66,900 tons, 3% more than in June. Shipments of by SIBUR-Kstovo increased by 2.1 times to 5,200 tons after maintenance. In addition, the Ryazan refinery increased its delivery of benzene by 44% to 3,800 tons, and Severstal and Slavneft-YANOS increased by 23% (to 3,400 tons) and 19% (to 6,500 tons) respectively. Reductions were recorded by Angarsk Polymer Plant and Ufaorgsintez by 30% and 16% respectively, to 3,400 tons and 4,700 tons. Sales on the domestic market totalled 444,400 tons in the first seven months in 2013, 3% higher than in 2012.

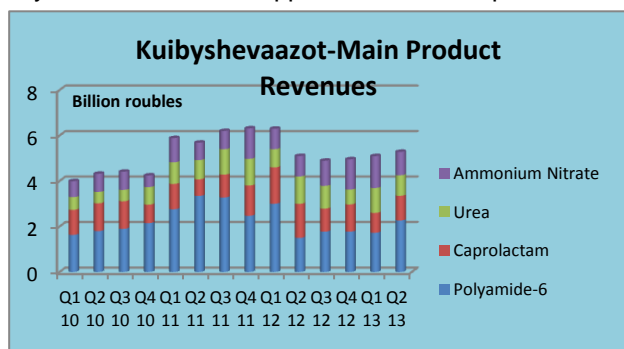


manufacturers Sverdlov Plant and the Biisk oleum plant bought 1.86 million tons (13%) and 1.19 million tons (8%) of toluene respectively. Other application areas in July included the paint sector which accounted for 2,390 tons of shipments and fuels and lubricants 1,860 tons. Nizhnekamskneftekhim uses toluene in small volumes as a solvent for rubber, whilst some quantities are purchased from the refineries by traders.



July for a maintenance outage is expected to restart in the second half of August.

In terms of consumption phenol customers in Russia are found in a wide range of applications. The largest consumer of domestic phenol is Kuibyshevazot, which is used for caprolactam production. Shchekinoazot also buys volumes. Other applications include phenol-formaldehyde resins, with companies such as MetaDynea and Karbolit buying large quantities. Other regular buyers include Uralkhimplast, where phenol is used in resin production, and Nizhnekamskneftekhim.



In terms of volume production was not very different from the first half of 2012, but financially margins and prices have been much lower this year. Kuibyshevazot is

### Russian toluene market, Jan-Jul 2013

Russian domestic shipments of toluene by rail amounted to 14,400 tons in July, 18% up on June. Shipments for the period January to July this year totalled 76,910 tons which was 9% up on 2012. The largest supplier this year has been LUKoil-Permnefteorgsintez with 31% of shipments.

The main consumer of commercial toluene in Russia in July was oil and gas company Obrninsk which uses toluene as the high-octane additive for motor fuels. This company bought 2,380 tons. The explosive

### Russian phenol market, Jan-Jun 2013

Phenol production totalled 142,000 tons in the first half of 2013, 3% up on the same period last year. Kazanorgsintez increased production by 13% in the first six months to 37,000 tons whilst Samaraorgsintez reduced production by 5% to 36,000 tons. Kazanorgsintez stopped production between the middle of July and the middle of August, thus affecting availability slightly. Samaraorgsintez remains the main exporter of Russian phenol, conducted mostly through Neftekhimya which is also a SANORS company. Kazanorgsintez stopped production of phenol on 20

### Kuibyshevazot reported lower earnings in H1 2013

Kuibyshevazot reduced its net profit in January-June 2013 by 28% against the same period last year to 1.805 billion roubles. Revenue also fell by 8.8%, to 14.22 billion roubles, whilst the operating profit fell by 27% to 3.87 billion roubles.

working on a number of projects including the construction of a unit for cord fabric and a revamp of the nitric acid plant. A major project is being carried out for the construction of a new energy-efficient production mode for cyclohexanone using DSM technology.

Consumers of polyamide-6 for Kuibyshevazot on the Russian market include producers of engineering plastics, films, fibres and filaments. These consumers are located in Moscow, Samara, Kursk, Volgograd, Tula, Rostov, and Sverdlovsk regions. Polyamide cord fabric is supplied to the Russian tyre plants in Tatarstan and the Altai Territory.

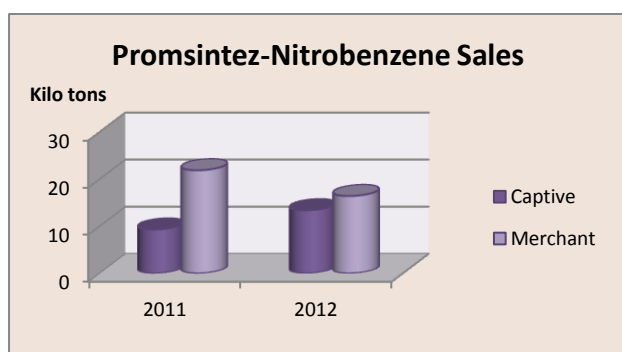
<b>Kuibyshevazot-Production (unit-kilo tons)</b>		
<b>Product</b>	<b>Jan-Jun 13</b>	<b>Jan-Jun 12</b>
Polyamide-6	65.4	58.3
High Tenacity Tech Yarns	7.8	5.6
Tyre Cord Fabric	3.4	3.0
Caprolactam	91.8	95.3
Ammonia	330.9	322.0
Urea	173.9	175.3
Ammonium Nitrate	283.3	285.7
Ammonium Sulphate	233.1	243.8

Much attention is paid by Kuibyshevazot to the modernisation and technical upgrading of the industrial complex, aimed at improving product quality and reducing consumption rates of raw materials and energy. The company is developing its own transport infrastructure, in order to optimise logistics costs. The International Finance Corporation (IFC) has agreed to arrange funding of \$175 million for Kuibyshevazot which will be allocated to the implementation of the investment programme for 2013-2016. The total cost of the programme is estimated at \$610 million.

Benzene supply for caprolactam production remains an issue for Kuibyshevazot and the company is looking to widen the range of supplier contracts, in addition to using phenol in greater volumes. Polyamide provides one of the main sources of revenue for Kuibyshevazot, particularly since the introduction of the fourth line in 2012. Polyamide accounted for 28% of total revenues in the first half of the year. China represents an important market for Kuibyshevazot through its Shanghai based JV Kuibyshevazot Engineering Plastics coupled with its own warehouse in China.

#### Promsintez-nitrobenzene & MDI project

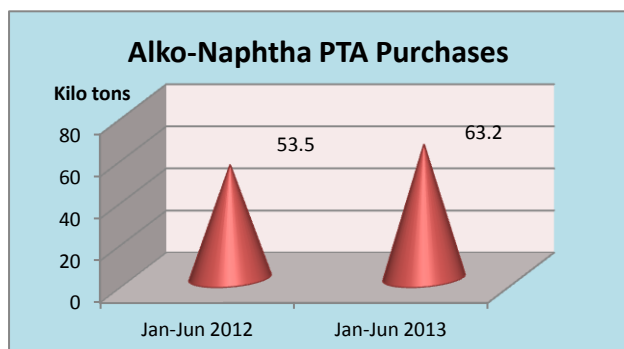
Promsintez is seeking financial support for its planned MDI project with a view towards construction starting in 2014. The main activities of Promsintez include the production and sale of industrial explosives and the production and sale of industrial products for industrial use (nitrobenzene, sulphuric acid regenerated, etc.);



The development of Promsintez is aimed at the implementation of measures aimed at organising new advanced products, retrofitting existing facilities with modern equipment and technologies, and modernisation of the energy sector. Investments in fixed assets in 2012 amounted to 58.129 million roubles targeted on the modernisation of the steam supply operations plant and the modernisation of the plant for weak sulphuric acid.

In 2012, preliminary work began on the MDI project in the industrial area of Promsintez. The company Eco-Engineering Technical has undertaken an economic

analysis of the production of isocyanates. Promsintez aims to build a plant with a capacity of 60,000 tpa capacity.



#### Alko-Naphtha, PTA imports

In the first six months in 2013 Alko-Naphtha imported 63,200 tons of PTA of which PKN Orlen provided 53,500 tons. In June PTA imports totalled 15,300 tons, with Orlen again providing the largest share of product.

#### Russian orthoxylene market, Jan-Jul 2013

Domestic sales of orthoxylene amounted to 11,960 tons in July, 3% down on June. Gazprom Neft accounted for 43% of shipments in July or 5,100 tons, Kirishinefteorgsintez 37% (4,400 tons), and Ufaneftkhim 20% (2.4 million tons). Kamteks-

Khimprom purchased 7,200 tons of orthoxylene in July, whilst the other phthalic anhydride producer Gazprom Neftekhim Salavat purchased 590 tons.

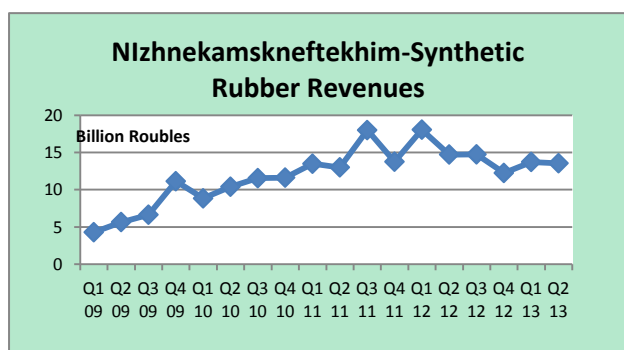
Another 2,700 tons were purchased by paint manufacturers, including Russian Paints (445 tons or 4% of gross supply), Zagorsk paint plant (440 tons, or 4%) and Yaroslavl Paint (314 tons or 3%). Agrochemicals, pharmaceuticals and other products accounted for 355 tons in July, whilst another 1,050 tons was bought by trading companies. From January to July 2013 shipments of orthoxylene to the Russian market totalled 79,600 tons, 4% more than last year.

## Synthetic Rubber

### SIBUR, Sinopec conclude jv at Krasnoyarsk Synthetic Rubber Plant

SIBUR and Sinopec have completed the creation of a jv at Krasnoyarsk Synthetic Rubber Plant (KZSK). Under the deal, Sinopec acquired from SIBUR 25% + 1 share in KZSK. The transaction has been approved by the relevant regulatory authorities. With the acquisition of shares in Sinopec KZSK has the opportunity to introduce a representative to the board of directors of the jv. Previously, the parties signed a cooperation agreement, which is the basis for the creation of a jv for the production of nitrile rubber based at KZSK.

Capacity at Krasnoyarsk could be increased from 42,500 tpa to 56,000 tpa. SIBUR and Sinopec also continue to discuss projects for the creation of a joint venture for the production of butadiene-nitrile and polyisoprene rubbers in Shanghai. Future production capacity could reach 50,000 tpa for each type of rubber and will be finally determined after a full project evaluation.



### Nizhnekamskneftekhim, Jan-Jun 2013

Despite the increase in physical production in the first half of 2013, Nizhnekamskneftekhim's revenues from the sale of rubber fell by 17% against the same period in 2012 to 27.280 billion roubles. The fall was attributed to weakness in the tyre markets whilst also margins have been affected.

At the end of July Nizhnekamskneftekhim celebrated forty years of operation at the butyl rubber plant. The original capacity of the plant was 35,000 tpa. Halobutyl rubber production was started in 2004, in addition to

chlorobutyl and bromobutyl rubber. In 2012 the butyl rubber plant produced a total of 192,500 tons, 96% of which was exported. The main consumers of Nizhnekamsk halobutyl rubber tyre are large foreign companies, accounting for 85% of exports in 2012.

### Russian Tyre Production (unit-thousand pieces)

Producer	2012	2011
Amtel-Pirelli	5222.4	8774.9
Altai Shini Zavod	1338.9	1405.3
Kordiant Group	9045.3	10210
Michelin	1386.5	1142
Nizhnekamskshina	10306.1	9855.6
Nizhnekamsk Tyre Plant	2228	969.7
Nizhnekamsk Tyre Plant	480.1	187.9
Nokian	11245.3	9279.9
Yokohama	259.8	0
Petroshina	335	322
Total	41847.4	42147.3

### Gazprom Neft & Total agreement on polymer bitumen binders

Gazprom Neft and Total signed documents on 23 July for the creation of a jv for the production of polymer-bitumen binders (PBB) and bitumen emulsions at the Moscow oil refinery. Production is planned for February and March of 2014. Output could reach 60,000 tpa. Total guarantees the delivery of components, whilst Gazprom Neft guarantees the supply of bitumen. The product will be produced from Styrelf technology, which uses thermoelastomers which are produced by Voronezhskintezkavuk.

### Russian tyre news

Nizhnekamskshina increased its net profit by 7.4 times up to 123.7 million roubles in the first half of the year. Revenue decreased by 7.7% to 8.157 billion roubles, whilst production costs were reduced by 10.9% to 7.331 billion roubles. Gross profit increased by 35% to 826.4 million roubles.

US tyre manufacturer Titan International is planning to close a deal to buy a controlling stake in Voltyre-Prom from the Kordiant Group before 1 September. This acquisition will provide the basis for further acquisitions in the CIS region. Titan International Foundation has reached an agreement in principle with the holding Kordiant for an investment in Voltyre-Prom. Titan plans to modernise the equipment at Voltyre-Prom, which will in future aim to replace imported tyres (now most of them equipped with imported agricultural and industrial machinery). Voltyre-Prom specializes in agricultural and industrial tyres. Its capacity is

2.3 million tyres per annum. The share of Voltyre-Prom in the Russian market of agricultural tyres was 43% in 2012, and industrial tyres 16%. In total the company produced 1.35 million tyres.

## Methanol & related chemicals

### Russian Methanol Production (unit-kilo tons)

Producer	Jan-Jun 13	Jan-Jun 12
Shchekinoazot	200.1	212.3
Sibmetakhim	439.5	394.4
Metafrax	537.0	537.0
Akron	40.0	39.4
Azot, Novomoskovsk	128.1	153.0
Angarsk Petrochemical	1.8	11.2
Azot, Nevinomyssk	58.5	60.2
Togliattiazot	389.5	296.4
Totals	1794.5	1703.9

### Russian methanol market, Jan-Jun 2013

The Russian methanol market has been stagnating slightly over the summer months due in the main to seasonally low demand. Domestic plants produced 296,000 tons of methanol in June, which is 2% below May. In the first half of 2013 Russian methanol production amounted to 1,800 tons which was 5% up on the same period last year. In August Metafrax started a maintenance outage and accumulated stocks in July to cover this period.

Methanol production totalled 1.795 million tons in the first half of 2013, against 1.704 million tons in 2012. Togliattiazot's methanol division Tomet showed the highest increase, rising from 296,400 tons in the first half of 2012 to 389,500 tons. Another significant increase was recorded by Sibmetakhim at Tomsk whilst declines

were seen at Shchekinoazot and particularly Azot at Novomoskovsk.

### Russian Commodity Exports

	Jan-Jun 13	Jan-Jun 13	Jan-Jun 12	Jan-Jun 12
Product	Kilo tons	USD Mil	Kilo tons	USD Mil
Ammonia	1,700	890	1,549	644
Methanol	754	262	920	208
Nitrogen Fertilisers	5,885	1,855	6,172	1,726
Potash	3,112	1,132	6,544	1,797
Mixed Fertilisers	4,691	1,953	3,831	2,182
Synthetic Rubber	475	1,274	442	1,450

July sales on the domestic market amounted to 107,600 tons in July, 7% down on June. Metafrax, Sibmetakhim and Tomet accounted for 86% of the total methanol sold in Russia. Over the month, Metafrax sold 36,300 tons, Tomet 27,500 tons, and Sibmetakhim 28,400 tons. Azot at Novomoskovsk increased sales by 63% over June to 8,700 tons.

In the first seven months of 2013 sales volumes of methanol on the Russian domestic market increased by 18% against 2012 and amounted to 809,000 tons. Sibmetakhim has

accounted for around 30% of sales in the first seven months which was the largest share in 2013, taking over from Metafrax last year.

### Metafrax, Jan-Jun 2013

Metafrax increased its net profit by 38% in the first half of 2013 against last year to 1.809 billion roubles. Revenues rose 24% to 6.958 billion roubles. Profitability was aided by good methanol prices in export markets and continued low gas prices. The share of exports in total sales amounted to 43.5% in the first half of the year against 41.4% in 2012. The profitability of production in the reporting period increased from 38% to 49.6%.

### Metafrax Production (unit-kilo tons)

Product	Jan-Jun 13	Jan-Jun012
Methanol	537.0	537.0
Formaldehyde	155.0	169.0
UFC	90.0	90.0
Pentaerythritol	11.8	11.6
Hexamine	9.0	8.3
Polyamide	0.4	0.3

Metafrax produced 537,000 tons of methanol in the first half year and 90,000 tons of urea-formaldehyde concentrate. Formaldehyde production dropped 0.6% to 155,000 tons, pentaerythritol rose by 1.8% to 11,800 tons and sodium formate by 2% to 6,100 tons. The production of polyamide block reached 353 tons, an increase of 1%. The new installation for hexamine increased production by 9% to 9,000 tons.

Favourable external market conditions helped Metafrax improve financial performance in the first half of the year. Metafrax exported 46.4% of its sales in the second quarter this year. Methanol was supplied to the markets of Kazakhstan and Ukraine, whilst being shipped further via

Finnish ports. Formaldehyde was delivered to Belarus and Latvia, whilst polyamide was supplied to Belarus. Pentaerythritol was delivered in the second quarter to Belgium, Germany, India, Poland, Turkey and the CIS markets in Belarus, Uzbekistan and Ukraine. Urea-formaldehyde concentrate (UFC) was supplied to Belarus and Ukraine. Russia's limited market for hexamine has been overcome by Metafrax in finding new markets abroad.



#### Shchekinoazot low methanol formaldehyde

Shchekinoazot has started trial operation on the unit for concentrated low methanol formaldehyde. In addition, the old hexamine unit has been renovated and is operating normally. Shchekinoazot completed several key projects in 2012, including the plants for the production of hydrogen (C26), urea-formaldehyde concentrated (UFC 60) and partial modernisation of the existing unit for caprolactam. Haldor Topsoe installed the hydrogen plant which reduces the cost of hydrogen to produce caprolactam and ammonia, with energy consumption cut by 68%, natural gas consumption by more than 12% and oxygen 100%. The 60,000 tpa caprolactam plant involved the reconstruction of the distillation column for ammonium sulphate solution, and installation of a new reactor. Preparations have begun for the start up in the oxidation shop.

The company's strategy has three main areas of development, including modernisation of existing units and building new units, energy efficiency, and the modernisation of water and wastewater. Due to the constant growth of production, the need to reduce costs and ensure the requirements of industrial safety regulations Metafrax has begun the reconstruction of the warehousing shop for pentaerythritol. The project will be completed in 2015. Work has also been carried out on the implementation of measures aimed at saving energy, improving energy security for the whole company.

#### Russian formaldehyde market

In line with the global trend Metafrax is gradually reducing the production of 37% formaldehyde and increasing 55% formaldehyde. The main competitors for Metafrax in the formaldehyde market include Sibmetakhim (Tomsk), Kronospan (Egorevsk), Khimsintez (Chapayevsk), Pigment (Tambov), and Akron (Novgorod).

New plants were announced for Tomsk and Dzerzhinsk in 2012, where start-up is planned for 2013-2014. Metafrax has the advantage over its competitors in that it has enough tanks to guarantee deliveries. MetaDynea is the only buyer of concentrated formaldehyde (55%) produced by Metafrax.

#### Uralkhimplast Main Production (unit-kilo tons)

Product	2012	2011
Formaldehyde 37%	30.2	32.1
UFC	20.0	20.2
PVC Plasticizers Granulated	4.2	6.6
Paraformaldehyde	0.9	1.3
Ion-exchange resins	0.6	0.5
Urea resins	36.4	32.6
Phenol-formaldehyde	42.9	37.1
Phenolplast	1.0	1.1
Urea-furan resins	3.4	3.4

#### Uralkhimplast, Jan-Jun 2013

Uralkhimplast increased its net profit in the first half of the year 14.5 times to 3 million roubles. The company's revenue declined by 18.9% to 1.593 billion roubles, and the cost of production fell by 17.9% to 1.323 billion roubles. Gross profit amounted to 270.2 million roubles, which is 23.4% less than in 2012.

Uralkhimplast is Russia's largest producer of synthetic resins and plastics. The group of companies includes production facilities in Nizhny Tagil (Sverdlovsk region), Moscow, Novosibirsk, and Togliatti. The group maintains a number of jvs, one of the most important being UralMetanolGroup which is involved in the construction of a new methanol plant at Nizhny Tagil. Although Rosneft is buying Itera, which was Uralkhimplast's partner in UralMetanolGroup, this is not expected to affect the methanol plant currently under construction.

The Uralkhimplast group's main markets include machine building and metallurgy, construction, oil & gas, etc. The main groups of products include urea-formaldehyde and phenol-formaldehyde resins for the production of particleboard; phenolic resins for the production of insulation materials, etc. Phenolic resins account for around 40% of group revenues.

#### Fosagro Production (unit-kilo tons)

Product	Jan-Jun 13	Jan-Jun 12
Ammonia	521.2	534.0
Urea	459.6	251.6
Phosphate fertilisers	2305.6	2170.6
Nitrogen fertilisers	675.2	468.7
Ammonium nitrate	182.3	251.2
Aluminium fluoride	14.1	13.1
Phosphoric acid	874.8	804
Sodium TPP	60	0

#### Fosagro to expand in South East Asia

Fertiliser group Fosagro plans to build up presence in South-East Asia in the next few years, and hopes to increase volumes by 20-30% in 2014. Exports account for around 70% of Fosagro's sales. At present Fosagro delivers its largest volume of products to Thailand, followed by Malaysia, Vietnam, and Korea. In the short term, the group expects to see most rapid growth in the Thai market. In addition, the company has the potential to begin shipping to China.

Fosagro was created in 2012 by the merger of Ammofos and Azot at Cherepovets. The group produces phosphorus fertilisers, ammonia, urea, ammonium nitrate and fertilisers based on it. Fosagro plans to build a new plant at Cherepovets for ammonia with a capacity of

760,000 tpa which is planned for the first half of 2017. Average costs for gas in 2012 paid by Fosagro increased by 8% from 3,015 roubles per thousand cubic metres to 3,248 roubles (97 roubles/Million Btu), but remain very low compared to European prices.

Fosagro Urea Supply (unit-kilo tons)		
	1H 2013	1H 2012
Sales	445.7	274.5
Production	459.6	251.6

In the first half of 2013 Fosagro's production capacity utilisation rate remained close to 100%. Total fertiliser production and sales grew by 12.9% and 14.0% respectively. The launch of new urea capacity in the second half of 2012 supported nitrogen-based fertiliser performance, with production and sales in up 44.1% and 37.5% respectively

In June 2013 Fosagro signed a contract with a consortium led by Mitsubishi Heavy Industries Ltd for construction of a new, energy efficient ammonia production plant at Cherepovets. The new line is expected to have an ammonia production capacity of 2,200 tons/day (760,000 tpa). In July 2013 Fosagro also signed a contract with INCRO S.A. to conduct design engineering work on a new NPK/NPS/NP production line with a capacity of 450,000 tpa at its subsidiary Balakovo Mineral Fertilisers.

## Organic chemicals

Russian Butanol Production (unit-kilo tons)		
<i>N-Butanol</i>		
Producer	Jan-Jun 13	Jan-Jun 12
Angarsk Petrochem	17.6	16.9
Evrokhim	7.2	10.3
Gazprom N Salavat	35.3	44.5
SIBUR- Khimprom	13.1	13.9
Total	73.2	85.6
<i>Isobutanols</i>		
Producer	Jan-Jun 13	Jan-Jun 12
Angarsk Petrochem	9.6	8.9
Gazprom N Salavat	15.3	18.2
SIBUR-Khimprom	23.2	22.8
Total	48.0	50.0

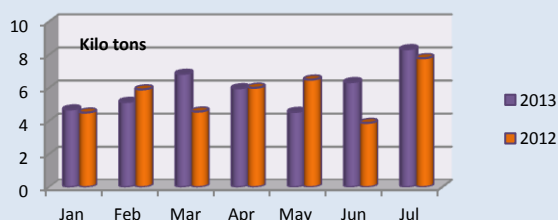
### Russian butanols, Jan-Jul 2013

Russian butanol production totalled 16,550 tons in June, 36% up on May but 26% down against June last year. The ratio of normal butanol in total production comprised 61%. The increase in output in June was due to the restart of the plant at Salavat after repair. However, only one of the two lines is operating following the accident in late May, and this is the main reason behind the lower volumes against June last year. Other maintenance has also been taking place at Salavat affecting the product chain. As a result the main producer in June in Russia was Angarsk Petrochemical Company with 32% (5,300 tons) of production followed by SIBUR-Khimprom at Perm which accounted for 31% (5,100 tons). Gazprom Neftekhim Salavat achieved 27% (4,500 tons) of production and Azot at Nevinomyssk 10% (1,700 tons).

Russian butanol production totalled 121,300 tons in the first half of 2013, 11% down on last year. Normal butanol comprised 60% of the total. Outages have been the main cause of the drop this year and domestic sales were also down, falling 21% against 2012, to 30,500 tons. The ratio of normal butanol purchases in the Russian market amounted to 88%. In terms of export activity most of the butanol shipments were supplied to China, with very small amounts being delivered to Europe.

Butanol sales on the domestic market amounted to 5,550 tons in July, which is 67% more than June but 24% lower than in July 2012. The largest share of butanol in July 2013 was shipped to Aktilat, amounting to 2,000 tons or 36% of consumption. These volumes are used in the production of butyl acrylate. Dmitrievsky Chemical Plant purchased 1,810 tons butanols used for the production of butyl acetate, butanols, and also exports on behalf of Gazprom Neftekhim Salavat. Other consumers included Sredneural'skiy copper smelter (480 tons, or 9%) and Volzhskiy Orgsintez (230 tons, or 4%). In the first seven months Russian consumption of butanols amounted to 36,100 tons, 22% less than in 2012. In the first half of August SIBUR-Khimprom stopped production for maintenance.

### Russian DOP Production 2013



### Russian DOP, Jan-Jul 2013

DOP imports into Russia dropped in July after the restart of production by Gazprom Neftekhim Salavat. June imports totalled 501 tons, most of which was supplied from South Korean companies LG Chem and Aekyung Petrochemical. Also a batch of 22 tons of DOP was shipped by Ukrainian company Lizinvest.

In July, DOP production in Russia increased by 31% against June to 8,330 tons. Gazprom Neftekhim Salavat produced 2,850 tons in July, 2.7 times higher than June. Kamteks-Khimprom and the Roshalsky Plant of

Plasticizers increased production by 2% and 5% respectively. For the period January to July 2013 Russian DOP

production amounted to 41,850 tons which was 7% up on last year. The rise is due mainly to the increased production of the product by the Roshalsky Plant of Plasticizers and Kamteks-Khimprom.

## Chlorine

**Russian Caustic Soda Production  
(unit-kilo tons)**

Producer	Jan-Jun 13	Jan-Jun 12
SIBUR-Neftekhim	19.2	30
Khimprom, Novocheboksarsk	47.7	48.6
Kaustik, Volgograd	125.3	118.2
Khimprom, Volgograd	43.3	40.2
Kaustik, Sterlitamak	94.7	88.8
Sayanskkhimplast	89.3	91.8
Novomoskovsk Chlor	25.6	25.5
Bratsk TSKK	36.2	36
Kirov-Chipetskiy CC	44.3	46.8
Others	6.1	21
Total	531.7	546.9

### Russian caustic soda market, Jan-Jun 2013

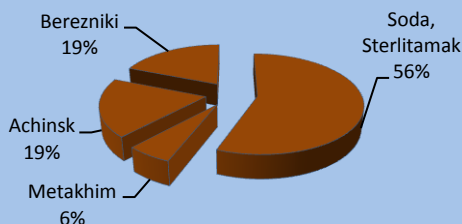
Market consumption for caustic soda in Russia amounted to 467,000 tons in the first half of 2013, 2.6% down on the same period last year. Production also declined 3% in the first six months and fell to 527,300 tons. Kaustik at Volgograd accounted for 20% production. Exports totalled 83,840 tons in the period January-June 2013, 1% down on 2012. For 2012, caustic soda consumption in Russia totalled 969,000 tons, of which 96% was supplied from domestic production.

### Renova Orgsintez renamed

Renova Orgsintez has been renamed to Group Orgsintez. Changes in the corporate style marked a qualitatively new stage of development. Renova Orgsintez was created in 2006 for management of direct investment in the chemicals

sector. At present, the holding company owns stakes in Khimprom (Cheboksary), Percarbonate (Cheboksary), and Khimprom (Volgograd).

**Russian Domestic Market Shares for  
Soda Ash Producers, Jan-Jun 2013**



### Fosagro wants to sell soda ash plant

Fosagro plans to close the sale of the soda ash producer Metakhim at Pikalevo, located in the eastern part of the Leningrad region. The reason for selling the soda ash plant is the lack of synergy with Fosagro's main product groups in fertilisers, urea and ammonia.

Fosagro's main production facilities are based at Cherepovets. The Metakhim plant produces soda ash and potassium carbonate (potash). The share of the domestic market for soda ash is small, accounting for only 6% in the first half of 2013.

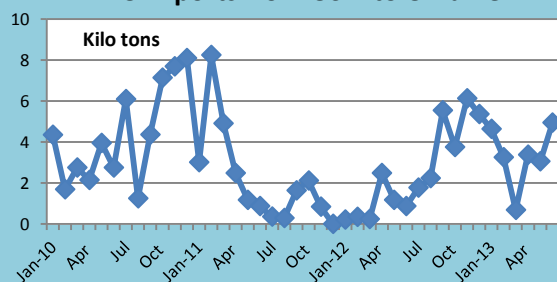
## Ukraine

### Karpatneftekhim delays restart from August to September

Despite intending to restart Karpatneftekhim on 2 August LUKoil has stated that the plant may not restart until the middle of September. The Ukrainian government is banking on Karpatneftekhim to restart as soon as possible as the company provides an important source of tax revenues in addition to helping drive local industry in western Ukraine. The government process whereby LUKoil receives paid VAT and abolition of excise duties has been progressing as agreed in April this year. More than 1 billion hryvnia has been accredited to the account of

Karpatneftekhim for the redemption of existing debt on VAT. LUKoil also wants anti-dumping duties applied to North American PVC imports which it claims are produced from lower costs than Karpatneftekhim.

**PVC Imports from US into Ukraine**



In addition to producing ethylene for VCM and polyethylene Kalush is also linked by pipeline to TVK at Tiszauvaros, should there be opportunities for monomer sales. Karpatneftekhim in 2011 started production of PVC with a capacity of 300,000 tpa, but in September 2012 it stopped due to a problem with the VAT refund and insufficient protection of the

Ukrainian producers from imports. However, this argument does seem rather vague as US imports dropped to very low levels after the Kalush PVC plant was started in 2011 and only started to revive once the plant stopped last year.

The Cabinet of Ministers of Ukraine and LUKoil signed a memorandum in April for resuming production at Karpatneftekhim. The document provides for the preservation of jobs and investment in the development of the company \$100 million by 2016 from the owner, and by the government the correction of tariffs for heat and transportation of raw materials by rail. In addition, the government will consider reducing the excise duty on certain raw materials used including LPG and heavy distillates.

<b>Ukrainian Chemical Trade 2013 (unit-kilo tons)</b>			
<b>Exports</b>	<b>March</b>	<b>April</b>	<b>May</b>
Benzene	3.939	5.584	7.533
Acetic Acid	7.514	8.827	6.631
VAM	1.723	2.313	1.368
Caprolactam	0	1.925	2.692
<b>Imports</b>	<b>March</b>	<b>April</b>	<b>May</b>
Styrene	1.272	1.737	1.766
Methanol	0.443	0.844	0.994
Acetic Acid	7.515	0.953	1.192

#### Ukrainian benzene & caprolactam market 2013

Due to the low demand in the first half of 2013 Ukraine sold only 3,100 tons of benzene on the domestic market, 7.1 times less than in the same period of 2012. By contrast Ukrainian exports of benzene totalled 28,400 tons for the first half of this year, 14% more than in the same period of 2012. Benzene is only exported to Russia and Slovakia.

Azot at Cherkassy produced 7,453 tons of caprolactam in the second quarter this year against 17,713 tons in the same period in 2012. The company is the sole producer in Ukraine and resumed production in April. During April-May 4,617 tons of

caprolactam was exported (96.5% of total production) to Taiwan (4,575 tons), whilst a small amount (42.5 tons) was sent to the Netherlands.

#### Ukrainian methanol market

Imports of Russian methanol increased in the second quarter due to purchases made by KarpatSmol. Most of the imports come from Azot at Novomoskovsk and Shchekinoazot. Azot at Severodonetsk (the sole producer of methanol in Ukraine) has set a target of 160,105 tons of methanol production in 2013 against 168,917 tons in 2012. The Ukrainian government has registered a new bill which proposes to reset the excise duty on methanol used in gas production. Azot could benefit if this measure goes through.

<b>Ukrainian Chemical Production (unit-kilo tons)</b>		
<b>Product</b>	<b>Jan-Jun 2013</b>	<b>Jan-Jun 2012</b>
Acetic Acid	53.1	62.9
Adipic Acid	0.0	0.3
Ammonia	2831.0	2475.8
Benzene (-95%)	19.3	69.7
Benzene (+95%)	73.7	101.0
Caprolactam	18.8	25.2
Carbon Black	0.0	69.5
Caustic Soda	24.4	85.9
Ethylene	0.0	99.8
Formaldehyde	0.0	21.0
Methanol	72.4	84.7
Polyethylene	0.0	54.7
Polypropylene	0.0	25.5
Polystyrene	8.5	8.4
Polyvinyl Acetate	0.0	4.0
PVC	0.0	95.7
Propylene	0.0	43.5
Soda Ash	301.8	317.8
Titanium Dioxide	72.66	77.0
Toluene	1.7	3.2
Urea	1331.5	1991.4

Domestic consumption of methanol in Ukraine in 2012 amounted to 175,000 tons of which 16,700 tons were imported from Russia. In 2007 at the peak of the market consumption totalled 232,400 tons before dropping to 140,500 tons in 2010. The largest volume of exports was made in 2007 when 57,600 tons were shipped and in 2009, 46,600 tons. Since then exports have declined as Azot has focused more on the domestic market.

#### Ukrainian DOP/coatings sector

Ukrainian imports of DOP totalled 2,100 tons in the first half of 2013, 64% less than in 2012. Import duties applied on DOP from Europe are the main cause of the lower volumes. In addition domestic demand has been weak whilst domestic production rose 56% in the first six months to 7,900 tons.

Consumption of coatings in Ukraine remains stable with modest growth. Organic based coatings rose 9% in the first half of the year to 61,800 tons whilst water-borne paints rose 5.4% to 50,500 tons. Production for organic products fell 6% to 49,200 tons whilst water based coatings rose 5.2% to 42,500 tons. Export activity is focused on other CIS countries, with imports are sourced from a wide range of countries and play an important part in the supply/demand balance.

#### Ukrainian organic chemicals, Apr-Jun 2013

Organic chemical production in Ukraine was sharply reduced in the second quarter this year compared to the same period in 2012. Karpatneftekhim remained idle whilst Rivneazot



and Azot at Severodonetsk did not produce adipic acid in this period. The fall in global prices for adipic acid has made production uncompetitive in Ukraine. In 2012 Rivneazot produced 13,500 tons whilst Azot produced only 260 tons. Partly as a result of the lack of adipic acid production benzene imports into Ukraine have fallen this year. In the first half of the year only 15,800 tons of benzene was imported.

Ukrainian Exports of Adipic Acid		
Year	Quantity	\$ per ton
2007	56.560	1618
2008	30.721	1509
2009	5.688	1333
2010	53.046	1823
2011	58.003	1730
2012	16.834	1494
2013 (Jan-May)	0.360	1851

Repairs were undertaken by Azot at Severodonetsk on the acetic acid plant in April affecting production for a few weeks. The repairs have led to reduced steam consumption in acetic acid production from 1.06 to 0.92 Gcal per ton of finished product. The economic impact of the expenditure has been estimated at 15 million hryvnia. In May-June this year Azot carried out repairs on the vinyl acetate and methanol units.

### Ukrainian soda ash/caustic markets

Soda ash production in Ukraine amounted to 301,800 tons in the first half of 2013, 5% down on 2012. All of the production was undertaken by Crimean Soda. The sole producer of caustic soda this year has been Dniproazot which produced 24,400 tons in the first six months against 55,400 tons last year.

Dniproazot Production (unit-kilo tons)		
Product	Jan-Jun 13	Jan-Jun 12
Chlorine	12.2	11.6
Caustic Soda	24.4	21.7

Karpatneftekhim has been idle all of 2013, and the last four months of 2012, explaining the difference. Partly as a result of this extended downtime imports of caustic soda (liquid only) into Ukraine increased by 21.2% in the first half of the year by physical weight, and 45.9% in terms of value.

### Ukrainian ammonia market

Ukraine produced 2.831 million tons of ammonia in the first half of 2013 which is 16% up on the same period last year. The largest producer was Stirol at Gorlovka which produced 699,100 tons. A serious accident took place at Stirol at Gorlovka on 6 August after ammonia was emitted during planned maintenance. Five people were killed initially and another one a few days later, in addition to a number of serious injuries. Stirol belongs to the Ostchem Group, which also includes Azot at Severodonetsk, Azot at Cherkassy and Rivneazot.

EU Polymer Exports to Ukraine (unit-kilo tons)			
Product	2010	2011	2012
PET	21.0	16.8	26.0
PVC	106.6	111.3	106.9
Exp PS	10.7	3.6	2.7
Polystyrene	9.4	7.8	6.8
HDPE	74.1	54.2	58.2
LDPE	48.7	51.0	46.1
Polypropylene	56.1	53.7	69.6
Vinyl Acetate Polymers	8.4	8.0	7.5
ABS	0.3	0.5	0.6
Urea resins	10.0	12.0	9.9
Phenolic resins	8.9	11.7	13.2
Melamine resins	1.2	2.4	2.8
Polyurethanes	6.8	6.9	6.1
<b>Total</b>	<b>362.1</b>	<b>340.1</b>	<b>356.4</b>

volumes into Ukraine.

Azot at Severodonetsk is planning to upgrade its ammonia plant in the near future, increasing production from 1,360 tons per day to 1,580 tons per day. The reconstruction is to be carried out by the Italian company Ammonia Casale.

### Ukrainian plastics, Jan-Jun 2013

The production of bulk plastics in Ukraine totalled 138,800 tons in the first half of 2013, 46.9% down on the same period last year. Most of the decline can be attributed to the non-activity at Kalush where Karpatneftekhim has been in dispute over VAT, PVC duties, etc, and Lisichansk where feedstock shortages and ownership changes have helped to stop polypropylene production.

Demand for plastics on the Ukrainian market has been steady but growth rates have slowed since the Euro football championships took place in 2012. PET is one bulk plastic where growth has been seen this year, with imports rising 16% in the first five months to 85,224 tons for a value of \$153.082 million. Increased sales of soft drinks have been the main stimulant to higher consumption. Around 70% of PET imports this year have been sourced from China, against 40% in 2012. Lithuanian PET is also imported in large

In the polystyrene sector the sole producer Stirol at Gorlovka produced 4,703 tons in the second quarter, slightly higher than in the first quarter due to maintenance. Production for the first six months amounted to 8,482 tons which was slightly higher than in 2012. Around 40% of production at Gorlovka comprised EPS.

**Ukrainian Polystyrene Imports  
(unit-kilo tons)**

<b>Product</b>	<b>Jan-May 13</b>	<b>Jan-May 12</b>
Total	23,703.9	24,353.3
EPS	8,065.4	8,785.8
HIPS & GPPS	9,453.3	9,415.6
SAN	83.5	140.6
ABS	1,528.9	1,541.2
Other	4,572.8	4,470.0

**Ukrainian polymer imports**

For 2012 Ukraine imported 12,221 tons of polystyrene, 28% of which was GPPS. Supply was divided between Nizhnekamskneftekhim and Styrolution. The only producer of polystyrene (HIPS, MSS, EPS) in Ukraine is Stirol at Gorlovka with a capacity of 50,000 tpa. The plant is capable of producing suspension, block and expandable polystyrene.

In September 2010, Stirol became part of the chemical holding Ostchem Group, controlled by Group DF. Stirol buys styrene monomer from Nizhnekamskneftekhim, Gazprom Neftekhim Salavat and Plastik at Uzlovaya. In recent years Russian styrene availability has declined

forcing Stirol to purchase styrene from other sources, but unstable delivery flows have limited production of polystyrene.

In the last two years, Stirol has changed the focus of production away from EPS to general purpose polystyrene. This change was dictated by the significant increase in demand for Ukrainian material from Russian processors. In 2011, the Ukrainian market for polystyrene (foam, high-impact and general purpose) increased by 10% compared to 2010 and reached 67,190 tons. Since then demand has been flattish and consumption dropped back to 57,500 tons in 2012.

---

**Kazakhstan**

---

**National Industrial Petrochemical Park-Atyrau**

The National Industrial Petrochemical Industrial Park at Atyrau, which is being developed as a special economic zone (SEZ), represents a key policy initiative by the Kazakh government. It is being designed principally to provide an outlet for polymers from the new gas-chemical complex at Atyrau which is expected to be completed in 2014. The total area of the SEZ consists of 3,475 hectares in which petrochemical, chemical and related industries will be located, particularly focused on the output of the polymers.

Kazakhstan possesses large-scale hydrocarbon fields in the Caspian region such as Kashagan and Tengiz and rather than simply exporting crude raw materials the country has made it a strategic objective to add value. The Kashagan field provides the basis for the aromatics complex under construction at Atyrau, including 133,000 tpa of benzene and 496,000 tpa of paraxylene.

With both polyolefin and aromatic complexes advanced in the construction stage the Kazakh petrochemical groups are seeking sales in order that the plants can run at close to full capacity after-start-up. Domestic consumption of polyolefins is small and may only account for around 10% of production from the new facilities when they eventually become active. Current marketing efforts are based on seeking trading contacts, in addition to supporting the development of the National Industrial Petrochemical Industrial Park. In the first few years of operation polyolefins for the Industrial Park will be supplied from Europe until the Atyrau gas-chemical complex becomes operational.

The aromatics complex represents a harder concept and challenge for marketing. Whilst potentially many small scaled polymer processors could operate in the Petrochemical Industrial Park at Atyrau, benzene and paraxylene are not products that could be processed in small volumes. It is quite probable that benzene could be exported; Russia could be one possible destination. However, the position on paraxylene seems to hinge on Kazakhstan and Belarus reaching agreement on a new PTA plant at Mogilev in Belarus or alternatively finding large-scale buyers in Asia.

**Kashagan-Atyrau**

The development of the Kashagan field is closely aligned with the construction of a giant chemical complex in the region. Hydrocarbon production at Kashagan is expected to start in October 2013, with some of the gas produced in the first offshore field will serve as raw material for the new chemical complex at Atyrau. This will include a total of 1.3 million tpa of polyethylene and polypropylene, projects which should be completed in 2017. The complex is located about 30 kilometres from Karabatan. To date, the site has been created and the railway siding developed.

The polypropylene plant of 500,000 tpa is expected to be completed in 2016 with the launch taking place in early 2017. This project will be followed by the polyethylene plant which is being designed to produce 800,000 tpa. Already draft estimates of construction indicate completion in 2017.



#### Benzene and paraxylene complex Atyrau start-up delayed to 2014

The aromatics project at Atyrau was originally targeted for completion by the end of 2013, but this deadline looks unlikely and it is more probable to expect 2014. The original intention from KazMunaiGaz was to start operations in December this year, but the contractors Sinopec Engineering have appealed to the Kazakh government to extend the start-up date to next year. The reasons for the delay appear to be labour-related in that Sinopec has been unable to recruit sufficient local people to complete the project.

The Kazakhstan government is considering imposing penalties on Sinopec as December 2013 was set as the start-up date as part of the original construction contract. The project

consists of 496,000 tpa of paraxylene and 133,000 tpa of benzene, whilst at the same time raising the quality of produced gasoline production to the level of Euro-4 standard.

*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

**Contents Issue No 273**

<b>FEATURES FROM THIS ISSUE.....</b>	<b>1</b>
<b>CENTRAL &amp; SOUTH EAST EUROPE .....</b>	<b>2</b>
PKN Orlen, Q2 2013 .....	2
Spolana restarts PVC and caprolactam .....	2
Unipetrol, Q2 2013.....	3
Unipetrol refining division, Jan-Jun 2013.....	3
Unipetrol's petrochemical division, Jan-Jun 2013 .....	4
MOL-TVK, Jan-Jun 2013 .....	4
TVK-butadiene project .....	5
Slovnaft Q2 2013 .....	5
<b>RUSSIA.....</b>	<b>6</b>
<b>PETROCHEMICAL PROJECTS .....</b>	<b>6</b>
SIBUR-Kstovo, ethylene project completion .....	6
SANORS-Rosneft jv .....	6
Novy Urengoy-Sberbank agreement .....	6
Stavrolen 2012.....	7
Angarsk Polymer Plant 2012.....	7
Omskneftekhimproekt wins contract at Tobolsk-Neftekhim for expansion of gas processing .....	7
Bashneft-United Petrochemical Company .....	7
<b>PETROCHEMICAL MARKETS &amp; COMPANY PERFORMANCE .....</b>	<b>7</b>
Russian ethylene production, Jan-Jun 2013 .....	7
Russian naphtha, Jan-Jul 2013 .....	8
SIBUR starts naphtha deliveries from Ust Luga.....	8
Russian propylene production, Jan-Jun 2013.....	8
Russian styrene supply, Jan-Jun 2013.....	9
Kazanorgsintez, Jan-Jun 2013 .....	9
Nizhnekamskneftekhim, Jan-Jun 2013.....	9
<b>BULK POLYMERS .....</b>	<b>10</b>
Nizhnekamskneftekhim-polyolefin projects .....	10
Biakspen close to start-up of BOPP plant at Tomskneftekhim .....	10
Gazprom Neft & SIBUR apply to buy Polyom.....	10
Tobolsk-Polymer to start production by end of August .....	10
Russian polypropylene imports, Jan-Jul 2013.....	11
Russian HDPE imports, Jan-Jun 2013 .....	11
Russian PVC imports, Jan-Jul 2013.....	11
Khimprom-PVC paste .....	11
Russian PET market, Jan-Jun 2013 .....	12
Penoplex completes expansion.....	12
<b>AROMATICS.....</b>	<b>12</b>
Russian benzene market, Jan-Jun 2013.....	12
Benzene sales-Russia, July 2013.....	13
Russian toluene market, Jan-Jul 2013 .....	13
Russian phenol market, Jan-Jun 2013 .....	13
Kuibyshevazot reported lower earnings in H1 2013.....	13
Promsintez-nitrobenzene & MDI project.....	14
Alko-Naphtha, PTA imports .....	14
Russian orthoxylene market, Jan-Jul 2013 .....	14
<b>SYNTHETIC RUBBER .....</b>	<b>15</b>
SIBUR, Sinopec conclude jv at Krasnoyarsk Synthetic Rubber Plant .....	15



Nizhnekamskneftekhim, Jan-Jun 2013.....	15
Gazprom Neft & Total agreement on polymer bitumen binders .....	15
Russian tyre news.....	15
<b>METHANOL &amp; RELATED CHEMICALS .....</b>	<b>16</b>
Russian methanol market, Jan-Jun 2013 .....	16
Metafrax, Jan-Jun 2013.....	16
Shchekinoazot low methanol formaldehyde.....	17
Russian formaldehyde market.....	17
Uralkhimplast, Jan-Jun 2013.....	17
Fosagro to expand in South East Asia .....	17
<b>ORGANIC CHEMICALS .....</b>	<b>18</b>
Russian butanols, Jan-Jul 2013 .....	18
Russian DOP, Jan-Jul 2013.....	18
<b>CHLORINE .....</b>	<b>19</b>
Russian caustic soda market, Jan-Jun 2013 .....	19
Renova Orgsintez renamed .....	19
Fosagro wants to sell soda ash plant.....	19
<b>UKRAINE.....</b>	<b>19</b>
Karpatneftekhim delays restart from August to September .....	19
Ukrainian benzene & caprolactam market 2013 .....	20
Ukrainian methanol market.....	20
Ukrainian DOP/coatings sector.....	20
Ukrainian organic chemicals, Apr-Jun 2013.....	20
Ukrainian soda ash/caustic markets.....	21
Ukrainian ammonia market.....	21
Ukrainian plastics, Jan-Jun 2013 .....	21
Ukrainian polymer imports .....	22
<b>KAZAKHSTAN .....</b>	<b>22</b>
National Industrial Petrochemical Park-Atyrau .....	22
Kashagan-Atyrau .....	22
Benzene and paraxylene complex Atyrau start-up delayed to 2014.....	23