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# **CENTRAL & SOUTH EAST EUROPE**

#### **Petrochemicals**

#### PKN Orlen-Q2 2010

In the first half of 2010 revenues from the Orlen group amounted to zl 38,510 million and were higher by zl 7,038 million over the first half of 2009. The increase in sales in the first half of 2010 stems mainly from the increase of refining sales by zl 6,554 million. The increase of 5.2% in revenues from the petrochemical division is the result of higher olefin sales despite repair shutdowns at Plock and Litvinov. Also higher prices have been recorded in the first half year for polyethylene by 33.8% and polypropylene by 55.5%. Ethylene prices rose by 43.4% and propylene increased by 84.3%.

PKN Orlen reduced refining volumes 2.9% in the first half of 2010 against last year, totalling 10.420 million tons. In the petrochemical division, sales of ethylene increased by 19.2%, butadiene by 16.0%, benzene by 15.1%, and propylene by 6.3%. On the other hand, sales of PVC decreased by 21.5% and fertilisers by 13.9%. Paraxylene production at Plock has not operated this year, whilst construction of the new much larger unit has been underway. The most significant investments undertaken in the second quarter of 2010 were concentrated on the respective construction of paraxylene and PTA plants at Plock and Wloclawek,

**PKN Orlen's Petrochemical Production** Kilo tons per quarter ■ Orthoxylene 400 300 □ Phenol 200 ■ Acetone □ Toluene 100 ■ Butadiene ■ Ethylene Glycol 01 02 03 04 01 Ω2 03 04 ■ Ethylene Oxide 08 08 08 09 09 09 09

and the completion of the butadiene plant at Kralupy. PKN Orlen invested around a billion zlotys in the first half of the year in the construction of the PTA and paraxylene facilities.

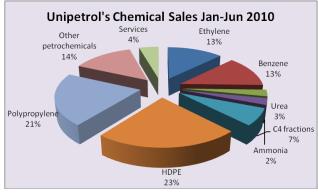
In the second quarter, the impact of economic factors combined with the increase of petrochemical margins helped increase the divisional result by zl 275 million. The effect of changes in prices of petrochemical products on inventory valuation reduced the operational profit by zl 49 million.

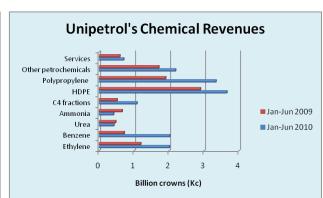
In order to guarantee security and continuity of crude

oil supplies, PKN Orlen concluded long-term contracts in 2009 for the delivery of crude oil up to 2012. PKN Orlen may benefit from an agreement by Venezuela to supply crude oil to Belarus, as oil can only reach Belarusian refineries through pipelines belonging to Orlen's Lithuanian unit. Other than crude supply contracts the Orlen group has started a jv with PGNiG for the exploration and extraction of hydrocarbons in Wielkopolska. Projects aimed at exploitation of local shale gas resources have been launched together with PGNiG.

# Unipetrol-second quarter profit of Kc 520 million

Unipetrol posted a net profit of Kc 520 million in the first half of 2010, compared with a loss of Kc 359 million in the same period in 2009. Revenues of the group rose 48% to Kc 23.4 billion. All products in the petrochemical division saw higher revenues aside ammonia. Polyethylene and polypropylene provided the highest source of revenues, followed by ethylene and benzene. The major new project to be started in the first half of the year was the new butadiene plant at Kralupy. The plant, with a capacity of 120,000 tpa, was launched in June and is managed under a jv between Unipetrol (51%) and Synthos Kralupy (49%). In addition to butadiene, Synthos has an arrangement to off-take C4 fraction from steam cracker in exchange for raffinate 1 for MTBE production.





Unipetrol has started a planned shutdown of the Litvinov steam cracker at the end of September, three weeks earlier than planned. The shutdown is planned for approximately two weeks during which technical improvements will increase the efficiency of the steam cracker installation. Works will affect a limited number of customers only.

#### **PKN Orlen-PTA plant**

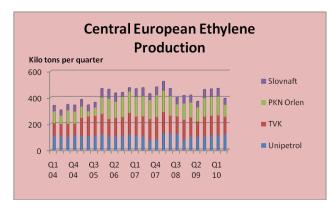
PKN Orlen has established an analytical laboratory at Wlocalwek where it will carry out testing of PTA in early November. The product will be tested prior to start-up of the PTA plant, which will be served by pataxyene from the new plant at Plock. Production was scheduled originally to start in the middle of 2010, but it looks product will not start emerging from the plant until the first part of 2011.

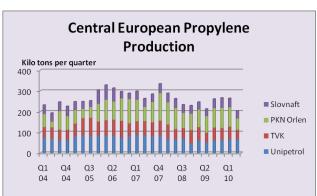
#### Slovnaft-new power plant

A project to build a combined steam/gas cycle power plant at Slovnaft at Bratislava has received the goahead following an Environmental Impact Assessment procedure. The Ministry of Agriculture, Environment and Regional Development approved its construction provided that certain recommendations are fulfilled. According to the assessment, the Ministry recommended the construction of a combined steam and gas unit with installed capacity of about 880 MW. The main investor in the project is CM European Power International, a jv between the energy groups MOL and ČEZ. The construction costs of the plant are estimated to be between €705 to €720 million.

# Central European olefin supply

Central European ethylene and propylene production volumes have been affected by lower demand in recent quarters with aggregate volumes softening since the peaks achieved in 2007. Lower demand for ethylene from consumers has affected PKN Orlen, TVK and Unipetrol over the past two years. Under-utilised capacity at BOP at Plock, BorsodChem at Kazincbarcika and more latterly Anwil at Wloclawek have contributed to lower cracker running rates. Propylene markets have been less affected, but cracker operating rates are largely influenced by the demand for ethylene.





PVC production has revived this year at BorsodChem, helping TVK's sales and the third quarter is expected to show an improvement. However, in Poland Anwil suffered an accident at the end of June at the electrolysis plant at Wlocalwek, and this has as reduced operating capacities by around 50%. This has reduced ethylene demand from Plock although the fourth quarter is expected to see a resumption closer to full capacity. Any losses for Anwil resulting from lower production will be covered in the form of compensation from insurance companies.

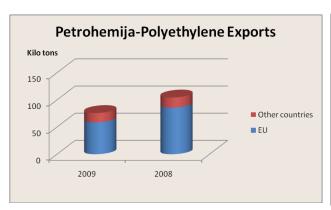
#### South East European petrochemical plants

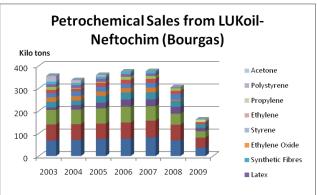
Rompetrol Rafinare and Rompetrol Petrochemicals have been shut as from 30 September running through to 1 November for general planned maintenance. During this period, the two companies will ensure product deliveries to their clients from stocked inventories. This is a normal operation which complies with the legal provisions into force regarding the operation of refineries, and is required in view of improving the manufacturing equipment and technologies. By the implementation of 61 new projects, the required premises are created for the Petromidia refinery to reach a processing capacity of 5 million tpa n 2012.

Petrohemija has made a public call for the selection of an engineering company for undertaking the reconstruction of the ethylene and propylene plants at Pancevo. Over the next 36 months, the company intends to execute an investment programme for the reconstruction and upgrades of the existing ethylene, HDPE and LDPE plants. In the first place, it will be necessary to create a Master Plan and Feasibility Study

(Phase 1), which would represent the basis for Petrohemija's application for capital funds. The winning bidder will be given the right to negotiate an EPC contract for the execution of the project.

Petrohemija has continued the restructuring programme in the past year, which has helped the company transform a negative operating performance into at least balanced. Petrohemija has sought new buyers for its products and thus the network of dealers and direct users of products has expanded significantly.



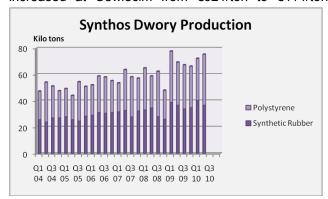


LUKoil's petrochemical division at Bourgas remains idle after being closed last year. In recent months, LUKoil has concentrating efforts on the restart of the Karpatneftekhim cracker in Ukraine and could address the petrochemical division at Bourgas in 2011. LUKoil plans to upgrade its refinery at Bourgas by investing around \$1 billion involving a project that has been developed by Technip. The new facility is expected to come online in about four years. LUKoil Neftochim accumulated losses of 176 million leva in 2009.

# Polymers & chemicals

#### Synthos, Jan-Jun 2010

Synthos recorded a significant improvement in its financial results in the first half of 2010 from its Polish and Czech divisions. A net profit of zl 205.690 million for the Synthos group was achieved in the first half year against zl 77.30 million in the first half of 2009. The product to feedstock margin for Synthos Dwory increased at Oswiecim from €321/ton to €414/ton in the first half of 2010. For Synthos Kralupy,



product/feedstock margins are traditionally higher and rose to €774/ton from €694/ton. The strong development of synthetic rubber prices, combined with the higher butadiene price and almost flat ethylbenzene prices, has resulted in a positive increase in the synthetic rubber product/feedstock margin. Moreover, strong demand for polybutadiene has partly been driven by a drought in Asia, which had caused rubber prices to soar this year.

Synthos Dwory forecasts total rubber production this year will reach 222,000 tons. The completion of a new 80,000 tpa polybutadiene rubber plant at

Oswiecim, scheduled for early 2011, should support future profits for Synthos. This will involve new products such as high-performance neodymium-polybutadiene rubber which are used for tyres, being added to the group's portfolio.

#### **ZA Tarnow-ZAK merger**

In late September ZA Tarnow's shareholders approved the idea of taking control of ZAK after recently being granted government authority to merge. The proposed merger of ZAT and ZAK could create a sizeable force in the Polish chemical industry, both in terms of fertilisers and organic chemicals. ZAT has undertaken a cost effectiveness analysis of ZAK's business, and on 7 September initially approved the purchase of 30 million shares in ZAK which would give ZAT 52.6% control. ZAK's turnover is actually higher than ZAT, and thus merger would seem a more appropriate phrase than acquisition but it is ZAT that has the better position on the stock market and capability to acquiesce shares. Irrespective, the new company would be a strongerplayer as ZAT has some of the most modern installations in the Polish chemical industry.

The Ministry of the Treasury has set the target of combining both companies after the privatisation of ZAT and ZAK failed rather badly earlier this year. The Ministry of the Treasury expects that the merger will created a strong player in the fertiliser market. Beyond ZAT-ZAK, there is some speculation that Anwil could possibly be amalgamated into the group which would create the largest chemical group in Poland. However, this would be dependent on PKN Orlen agreeing a price with ZAT which may not be so straightforward.

# ZA Tarnow-ZAK trends, Jan-Jun 2010

ZA Tarnow recorded a net profit of zl 29.64 million in the first half of 2010 against zl 22.55 million last year.



Revenues amounted to zl 748.58 million against zl 609.53 million.. ZAK achieved a profit of zl 12 million in the first half of 2010, three times more than last year. Revenues of ZAK in the first half reached zl 868 million, zl 83 million more than the same period in 2009. ZAK has offered voluntary redundancy over the summer, which was taken up by 96 employees. In the second quarter, the company applied a restructuring programme the company while reducing the level of fixed costs.

At present, ZAK is completing the construction of water treatment plants and the installation of a nitric acid

plant. The new facility will be much more efficient than the existing plant, it will use less resources and will be more environmentally friendly. It will also reduce emissions of CO2, and Nox. Longer term, ZAK's focus

| Polish Chemical Production (unit-kilo tons) |            |            |
|---|------------|------------|
| Product                                     | Jan-Aug 10 | Jan-Aug 09 |
| Caustic Soda Liquid                         | 166.9      | 143.5      |
| Caustic Soda Solid                          | 39.3       | 39.9       |
| Soda Ash                                    | 657.8      | 517.0      |
| Ethylene                                    | 325.2      | 280.0      |
| Propylene                                   | 213.5      | 199.0      |
| Butadiene                                   | 39.5       | 27.3       |
| Toluene                                     | 62.4       | 51.6       |
| Phenol                                      | 20.6       | 18.2       |
| Caprolactam                                 | 103.5      | 76.4       |
| Polyethylene                                | 235.2      | 184.0      |
| Polystyrene                                 | 92.0       | 72.7       |
| PVC   | 132.2      | 143.0      |
| Polypropylene                               | 150.4      | 147.0      |
| Synthetic Rubber                            | 106.4      | 75.3       |
| Pesticides                                  | 14.8       | 15.6       |

together with PKE is centred on its coal gasification project, which is aimed at developing a chemical complex based on zero emissions. ZAK needs approximately zl 20-40 million for the preparation of design documentation, and about zl 5 billion for construction of the zero emission energy-chemical complex. It is not clear whether a merger with ZAT would lead to more support for this project, but the concept is consistent with ZAT's own aims of developing internal feedstock resources and for improving the environemtal records from chemical producttion.

# **ZCh Police-ZA Pulawy privatisation**

The Polish Treasury wants to invite investors to complete their binding offers for ZCh Police and ZA Pulawy by 11 October. Due diligence is being carried out by interested parties, from domestic and foreign companies. According to earlier announcements, the investor for ZA Pulawy is to be chosen by negotiation in the fourth quarter of 2010. As with the privatisation of ZAK and ZAT, which ended in failure, the eventual outcome for Z Ch Police and ZA

Pulawy could depend on how willing the Polish government is prepared to compromise on price. Clearly ZCh Police is the more disadvantaged of the two companies up for sale, at least in terms of financial standing. The company has been facing serious financial problems in the past two years, although does possess some good production technologies.

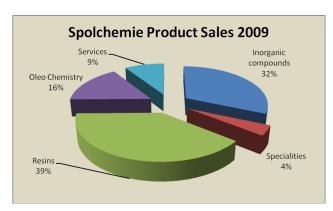
ZA Pulawy is much better placed and invested zl 352,635 in the twelve month period between 1 July 2009 and 30 June 2010, 120% more than the previous year. Despite the adverse economic conditions the company completed a wide range of tasks including the modernisation of the oxygen generating plant together with the ammonia and urea units. Another project involved the improvement and expansion of capacity at the caprolactam plant.

#### Dioki interested in Vinyls Italia

Dioki has indicated interest in buying Vinyls Italia. Italy's Economic Development Ministry drew up a new international tender for Vinyls Italia including supply guarantees from Eni in an effort to push through the stalled sale of the PVC producer. A previous attempt to sell the assets fell through in May when Qatari engineering and construction company Ramco Trading and Contracting pulled out of the negotiations. Vinyls Italia, which

formerly belonged to Ineos, went into receivership in May 2009, forcing the closure of production facilities at Ravenna, Porto Marghera and Porto Torres. The new tender will contain guarantees that Eni will supply vital raw material and cede necessary assets to ensure a restart of the plants.

Italian concerns are that DIOKI would be interested to undertake the production of PVC, and would not be capable of developing the full chain of production through to plastics as required. The deadline for submission of tenders for the Vinyls Italia is 22 October.



# Spolchemie, Jan-Jun 2010

Spolchemie increased sales by 15% in the first half of 2010, to total Kc 2.4 billion. The company is continuing to record losses, but the outlook has improved. The fastest growing profits for Spolchemie stems from epoxy resins and unsaturated polyester resins, which accounted for Kc 1.3 billion of the total sales and increased 31% against the first half of 2009. The company's sales decline last year was felt mainly by its key product area epoxy resins, and impacted heavily in the losses. The main reason for the revival in sales has been the growth in demand from the automotive and electronics industries. Problems facing

Spolchemie are concentrated mostly on working capital despite a stringent restructuring programme, and this has impacted on investments particularly for the conversion of mercury to membrane. At the end of July, company announced that together with DIC it will create a so-called joint venture company that will offer products of both companies.

# RUSSIA

| Russian Chemical Production |            |            |  |
|-----------------------------|------------|------------|--|
| unit-kilo tons              |            |            |  |
| Product                     | Jan-Jul 10 | Jan-Jul 09 |  |
| Ethylene                    | 1,425.4    | 1,273.8    |  |
| Benzene                     | 616.1      | 572.2      |  |
| Styrene                     | 276.1      | 288.2      |  |
| Phenol                      | 135.1      | 82.5       |  |
| Polyethylene                | 918.7      | 804.5      |  |
| Polypropylene               | 365.9      | 328.6      |  |
| PVC                         | 345.1      | 310.8      |  |
| Polystyrene                 | 169.3      | 146.4      |  |
| Butanols                    | 162.5      | 149.2      |  |
| Methanol                    | 1,750.9    | 1,204.3    |  |
| Syn Rubber                  | 651.8      | 500.1      |  |
| Caustic Soda                | 634.4      | 630.2      |  |
| Soda Ash                    | 1,535.1    | 1,304.5    |  |
| Ammonia                     | 7,652.7    | 7,448.5    |  |
| Phth Anhydride              | 60.0       | 54.5       |  |
| Acetic Acid                 | 90.9       | 96.3       |  |
| Carbon Black                | 369.8      | 271.1      |  |

# Russian long term petrochemical aims

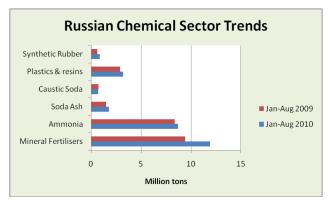
Analysis and long term targets for the petrochemical industry provided one of the central themes of Vladimir Putin's visit to Nizhniy Novgorod on 13-14 September, including an assessment of the current list of projects and all-important feedstock issues. The key question to resolve before the end of 2010 is over pipeline routes for gas liquids transportation from West Siberia, and there are two main options under review. As is traditional at high-level meetings in Russia, announcements followed regarding the need to build a series of new crackers over the next few years. However, there was nothing new added in terms of location or product detail to what is already known.

The dynamics of the proposed investments are based on the principle to make use of the increasing supply of associated gas on the one hand, whilst on the other hand addressing the lack of feedstocks available for petrochemical production at existing facilities. Putin's visit to Kstovo led to calls for the removal of infrastructure and administrative constraints throughout the chemical industry in order to create new advanced processing complexes. Russian plants produce about 1% of world chemical production in total, a large share of which comprises low value

added production. The government's broad based strategy is to encourage more advanced production to produce raw materials for use in construction and road services, etc.

Past announcements from the Russian government regarding prospective plans for the petrochemical industry have not gone much beyond the discussion stage. However, there is a feeling in some circles that the message from the industry is being understood more at central level. The abolition of the Ministry of Chemical and Petrochemical industry, after the collapse of the USSR, effectively left a vacuum in the planning and coordination of strategic chemical projects in Russia. The private sector has for some time claimed that feedstock costs for Russian producers are higher than global competitors and that support is

essential from the government to address this issue. Trade barriers might provide some temporary



defence to domestic production, but it seems universally accepted that major improvements in feedstock arrangements, infrastructure, etc can only take place with government backing and investment.

### Feedstocks & petrochemicals

# Feedstock pipeline route to be decided in next few months

The Nizhniy Novgorod meeting in September brought to the table considerations of the two different route concepts for transporting gas liquids from West Siberia to Central and North-West Russia. SIBUR

advocates the construction of a product pipeline from Urengoy to the Baltic coast under the so-called the Chord pipeline, and this would allow the group to construct a large petrochemical complex with export capability. Conversely, TAIF defends the idea of restoring and modernising the disabled pipeline of Belozersk-Surgut-Tobolsk-Tyumen-Ufa-Minnibayevo-Nizhnekamsk and its eventual extension to the Baltic. A main advantage of this option is that it satisfies the interests of not one company, but all companies operating on the route. The SIBUR proposal is thought to be better under technical analysis, but it would leave other petrochemical companies without access to hydrocarbon feedstocks from West Siberia.

By the end of this year, the government is expected which is the most feasible and how much it is willing to invest in supporting the development of the petrochemical industry. Studies and consultations are currently underway on which the final decision will be critical for future investments in petrochemicals in Russia. SIBUR's project is valued at around \$5 billion, involving the construction of a new 3300 km pipeline from the Khanty-Mansiisk region in West Siberia to the Baltic coast. The aim is to construct a world-scale olefin and derivative complex at the end of the pipeline. SIBUR's argument is that with the pressure to achieve a 95% utilisation rate of associated gas by 2012, the only feasible option is to make use of these feedstocks through the export of petrochemicals.

TAIF proposes to restore the pipeline destroyed in 1989, which it argues is a cheaper and would serve the existing petrochemical plants in Tatarstan and Bashkortostan. Either way, the government would need to provide finance to support the project and TAIF would be ready to supply around a quarter of the costs. An extension to the Baltic coast could be still possible using this option, but TAIF has tried to emphasise the significance of the Volga-Urals route in terms of serving the established plants in the region.

# Irkutsk gas-chemical assessments

Gazprom is considering a number of sites for gas processing and gas chemical production in the Irkutsk region. Favoured locations include Ust-Kut and the Kazachinsko-Lena areas, as well as Sayansk. The local administration has signed a memorandum of understanding with Gazprom, SIBUR and Marubeni on how to make possible use of free and associated gas.

The Russian institute VNIIGAZ will finish its work this year concerning the development and separation of helium concentrate in the Irkutsk region, as part of plans to develop a regional gas-chemical complex. According to Gazprom, the development of the chemical industry in East Siberia in 2030 could produce substantial volumes of primary commodity production. This could include polyethylene, polypropylene and other chemical products, which are needed not only in Russia, but also possess export potential. The helium content in hydrocarbons in East Siberia is considered one of the highest in the world. The development of gas and chemical complex in the Irkutsk region, including the extraction and refining of helium would require \$3.5-4.0 billion investment, according to Gazprom.

# LUKoil-Caspian project support from regional and central governments

LUKoil's gas processing and petrochemical project investments at Budyennovsk has received full support from the Stavropol regional administration in the north Caucasus. The complex has been intended to start in the timeframe 2015-2016, with the target of processing up to 5 billion cubic metres of gas per annum. This will be produced at the offshore fields of LUKoil in the Northern Caspian and then transported to Budyennovsk. A pipeline of 230 km from the Caspian, where it will fall into the backbone system of Gazprom, is to provide the basis for the project.

The project includes major expansions for polyolefin capacity based on the current site of Stavrolen at Budyennovsk. In addition, investments will be undertaken to develop industrial parks in Budyennovsk and nearby Nevinomyssk, as a potential outlet for the polymers produced on the new complex. In September 2009, LUKoil estimated the project to cost in the range of \$3.6 billion to support the construction of a gas chemical and polyolefin complex.

The maximum level of production in the Caspian Sea is 8 million tpa of hydrocarbons, of which around 6 million tpa will come from oil. From this amount, the company plans to produce up to 2.2 billion cubic metres of gas per annum. One stumbling block to the Budyennovsk petrochemical project has been duties; LUKoil has approached the government with a proposal to zero out as export duties for oil produced on the shelf. In the middle of September 2010, the government finally made the decision to offer a reduced rate of export duty on oil from fields of the Caspian Sea in 2011.

### Nizhnekamskneftekhim-ethylene shutdown

Nizhnekamskneftekhim is halting ethylene production for 20 days from 20 September for scheduled maintenance. The restart in early October is planned to coincide with a five-day shutdown in polyethylene and polypropylene. The shutdown will make it difficult for Nizhnekamskneftekhim to exceed its target of in excess of 600,000 tons production of ethylene this year.

# Kazanorgsintez-strategic investment programme

Kazanorgsintez is completing the last stage of its strategic development programme over the period 2004-2010, valued at a total of 35 billion roubles. In October, the company will introduce a modernised ethylene complex which increases capacity from 430,000 tpa to 640,000 tpa. The immediate problem is ethane as agreements for additional supply have still not been met with Gazprom. As a result, it is not clear if the new plant will be capable of running at full capacity at least in the short term.

The new production unit for ethylene was intended originally to appear in Kazanorgsintez in the fourth quarter in 2008, but was delayed due to internal and external factors. One of the chief factors affecting this project is the lack of ethane, almost as much as 200,000 tpa from Gazprom. Another factor in 2008-2009 was the company's debt situation, which this year has been eased and has allowed the completion of the ethylene expansion.

#### Oil-gas news

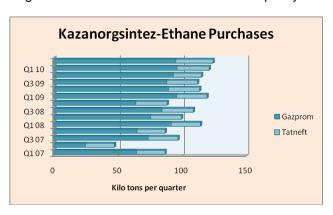
Rosneft reduced production of natural and associated gas by 0.8% in the first half of 2010, from 6.28 billion cubic metres to 6.23 billion cubic metres. The main constraints to growth have included necessary repairs to the gas processing plant at Lugenetskaya in the oil producer Tomskneft. In the second quarter of 2010, Rosneft has reduced the production of natural and associated gas by 9.5% to 2.96 billion cubic metres. The fall was due to seasonal fluctuations in demand, as well as scheduled maintenance on a number of SIBUR's gas processing plants. The company currently is working to increase the level of use of associated gas, and has created a programme for the construction of systems for collecting gas together with the necessary infrastructure investments.

Laws passed on 9 March 2010 have now come into effect in Russia which aim to ensure priority access to the Unified National electrical facilities for the production of electricity, using associated gas and its products. The development of gas processing facilities and creating the conditions for recycling would bring the level of beneficial use of associated gas to 95%. The document is intended to help reduce flaring gas and to encourage investors to build power plants that use this type of gas and its derivatives for the production of electricity.

The Russian government has approved a draft programme for the integrated development of deposits in the Yamal-Nenets Autonomous District and the north of Krasnoyarsk up to 2020. The main objective of the programme is the formation of new centres in the region for oil and natural gas, the development of a transport infrastructure, including pipelines and the development of production and export of LNGs.

The first phase of the strategic programme for Kazanorgsintez has included an increase in capacity for



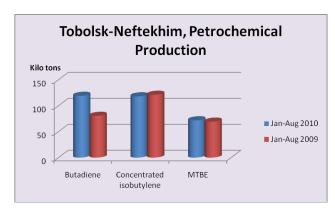


HDPE production from 197,000 tpa to 510,000 tpa, and has commissioned new plants for bisphenol-A with a capacity of 70,000 tpa and polycarbonate with a capacity of 65,000 tpa. The company's second phase seems likely to be put on hold for the foreseeable future, and depends on a number of factors including the government's pending selection of a gas liquids pipeline.

As Gazprom cannot supply sufficient ethane for Kazanorgsintez to run its ethylene complex, alternative technology has been developed which allows the utilisation of ethane-propane mixtures. From a profit perspective, ethane is the first choice of feedstock, but it seems unlikely that this will be possible for some time. As the graphic above indicates, it is rare for Kazanorgsintez to consistently achieve full capacity utilisation for ethylene. Kazanorgsintez hopes to increase the capacity at the Minnibayevo GPP, the sole gas processing plant in Tatarstan. Reconstruction is currently close to completion, which Tatneft hopes for the fourth quarter in 2010, and this will increase the supply of ethane from 90,000 tpa to 140 tpa. Despite these developments, Kazanorgsintez will still be short of ethane by between 150-170,000 tpa.

#### **SIBUR-Trans**

Prior to the end of 2010, SIBUR's logistics subsidiary SIBUR-Trans is planning to increase its own fleet of cars up to a total of 5,300 for the transportation of LPGs and petrochemical products. A priority project for SIBUR-Trans includes the development of the Tobolsk transportation hub and increasing its throughput capacity. Tobolsk is the major link used by SIBUR-Trans, and its significance will rise after the completion of the second gas fractionating unit at Tobolsk-Neftekhim, as planned by SIBUR for 2012. In addition, the company intends to engage in building tank containers at Nyagan (Khanty-Mansiisk), and also the further development of container transport polymer and petrochemical products.



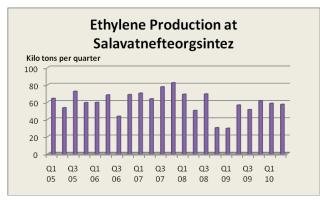
# Tobolsk-Neftekhim, processing increases in January-August 2010

Tobolsk-Neftekhim increased the amount of SHFLU (NGLs) processing to 2.557 million tons in the January-August period, which was 11.6% up over the same period last year. Production of butadiene increased by 48% to 119,000 tons. The plant also produced 1.563 million tons of LPGs, which is 3.9% more than in January-August 2009. The company has recently completed its modernisation programme for this year, which includes the butadiene and MTBE facilities. Other parts of the complex where improvements have focused mainly

on the electricity system and the introduction of a new range of generating transformers.

# Salavatnefteorgsintez-ethylene modernisation & sales

Salavatnefteorgsintez is progressing with the modernisation of the cracker and project to expand capacity from



300,000 tpa to 380,000 tpa. Work has recently been conducted on the modernisation of the columns including the separation of the ethane-ethylene fractions. The partial usage of ethane will help to reduce production costs for ethylene, in addition to meeting the capacity demands for the company's new HDPE plant. In addition, Salavatnefteorgsintez sells ethylene to consumers such as Kaustik at Sterlitamak where there has been a recent dispute over pricing.

Salavatnefteorgsintez claims that several other Russian companies are planning to conclude with long-term contracts for the supply of ethylene.

These include Kazanorgsintez and NeftekhimSevilen both at Kazan, and the Plant of Sintanol at Dzerzhinsk. Kazanorgsintez was helped out with ethylene from Salavat during a period of shortages, and has expressed interest in extending the relationship with Salavatnefteorgsintez for long-term contracts for the supply of ethylene. However, in theory Kazanorgsintez should not need to make use of these contracts as it is currently close to completing the cracker expansion and additional supplies are normally provided by Nizhnekamskneftekhim.

Also in Kazan, Neftehimsevilen has expressed interest in continuing cooperation with Salavatnefteorgsintez and wants to conclude a contract for the supply of ethylene for a period of seven years. Salavatnefteorgsintez has been supplying ethylene to NeftekhimSevilen since 2008 and accordingly offers a clear and reasonable pricing formula. Lastly, the Plant of Sintanol at Dzerzhinsk, which is owned by the company Norchem, will launch a new product unit in the next few months, and in order to support this expansion intends to conclude a contract with Salavatnefteorgsintez for ethylene supplies for five years. In January 2011, the Sintanol plant will establish new facilities for up to 10,000 tpa of polyethylene glycol and methoxy polyethylene glycol.

Both NeftekhimSevilen and the Plant of Sintanol are small consumers and long term contracts will not involve large volumes. Moreover, the information about other interested ethylene consumers was made public at the same time Salavatnefteorgsintez was in deep conflict with its main strategic ethylene consumer Kaustik at Sterlitamak. The simple aim is to show that its pricing structure and service is considered fair by other consumers.

#### Salavatnefteorgsintez-Kaustik ethylene dispute

After pressure from the Federal government, the dispute between Salavatnefteorgsintez and Kaustik over ethylene prices has been resolved initially for two months. Regional requests from Sterlitamak had been placed with the Federal Antimonopoly Service to resolve the conflict and a temporary resumption of supply was agreed following Putin's direct intervention. The supply will be arranged for two months based on the previous formula, after which Salavatnefteorgsintez and Kaustik will be required to reach agreement on a long term contract.

PVC production at Kaustik was forced to stop due to the halt in ethylene supplies. Salavatnefteorgsintez stopped ethylene production in July for a planned turnaround, but following the restart did not send ethylene to Kaustik due to unpaid debts of 59 million roubles. At the end of 2009, the two companies concluded a five-year contract for the supply of ethylene, but the formula has since changed due to rising feedstock costs.

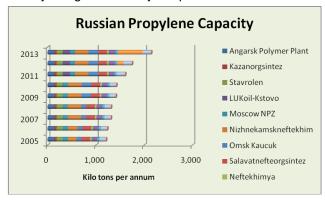
#### Ethylene pricing issues in Russia

Similar pricing disputes have occurred before in Russia, involving Angarsk Polymer Plant and Sayanskkhimplast. In this case, the parties reached agreement on a mutually acceptable model for calculating the price of ethylene, depending on the supply of PVC in the domestic market or for export.

The paradox surrounding the dispute between Salavatnefteorgsintez and Kaustik is that the two companies were created as a single technical chain when the USSR was intact. Sending ethylene by pipeline from Salavat to Sterlitamak was considered a permanent arrangement for the production of PVC by Kaustik. Prices were fixed through the system of central planning, which possessed only an arbitrary relationship to global market prices or in other words a non-commercial relationship. Following the transition to free market prices in the 1990s and the emergence of stock holding companies, a new commercial relationship was created for Salavatnefteorgsintez and Kaustik. Ethylene supplies have since been sold on long term contracts, based on a formula linked to the price of PVC. In the past few months, however, the two companies have diverged on how the pricing formula should be interpreted.

# LUKoil to start propylene production at Kstovo refinery

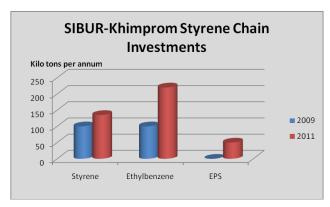
LUKoil-Nizhnegorodnefteorgsintez is close to completion in the modernisation of the Kstovo refinery, involving the construction of a catalytic cracking complex. After putting into operation, scheduled for later this year, the Nizhny Novgorod refinery will produce an additional 1.4 million tpa of gasoline Euro 4 and Euro 5, over 400,000



tpa of diesel fuel and 150,000 tpa of propylene. The propylene will be sent mainly to Saratovorgsintez for processing into to acrylonitrile. If there is a surplus remaining it might be bought by Akrilat at Dzerzhinsk. The investment in the catalytic cracking unit has amounted to around 30 billion roubles. The Kstovo refinery was commissioned originally in 1958, and became part of LUKoil in 2001. Oil at the 17 million tpa refinery is delivered from the pipeline Almetyevsk-Nizhny Novgorod. In 2009, refined oil totalled 16 million tons.

Regarding propylene, the addition of 150,000 tpa for

the merchant market in Russia will provide a major boost to the supply/demand balance, which has been very tight in recent years. Shortages of propylene in the Russian market have helped instigate a wide range of research into different routes of propylene production, and the project at Kstovo is the result of examination by Koch Glitsch established several years ago. Propylene capacity in Russia is shown in the graphic above, rising from 1.317 million tpa in 2009 to 2.199 million tpa by 2013. Aside the Kstovo plant, the main development is taking place at Tobolsk with the introduction of 510,000 tpa at the end of 2012. Titan at Omsk is also introducing propylene capacity to meet the demand from its new polypropylene plant which is close to completion.



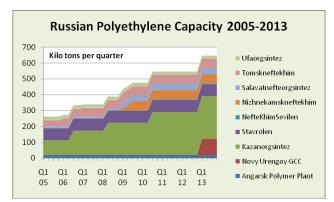
# **SIBUR-Khimprom investments**

SIBUR-Khimprom has completed the reconstruction of styrene unit, resulting in an increase in capacity from 100,000 tpa to 135,000 tpa. During the reconstruction process, production has been transferred to the vacuum dehydration method which will reduce the consumption ratio of ethylbenzene and consumption of energy.

The project is to increase the production of styrene is part of a comprehensive investment project in the styrene chain, which includes the expansion of ethylbenzene capacity and the construction of a new

plant for expandable polystyrene. By the end of 2010, SIBUR-Khimprom will start its revamped ethylbenzene capacity of 220,000 tpa and new expandable polystyrene capacity of 50,000 tpa, based on Sunpor technology. The three projects together have cost around 8.0 billion roubles. In addition to developing a vertical styrene chain, SIBUR-Khimprom will have surplus ethylbenzene and styrene monomer for sales on the domestic market.

# **Bulk Polymers**

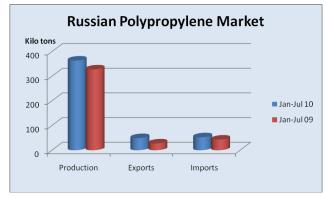


# Novy Urengoy PE plant on schedule for 2012

Construction at the Novy Urengoy Gas Chemical Complex is on schedule, according to reports, and the project should be completed by the end of 2012. The capacity of the polyethylene plant is reported at 400,000 tpa, whilst the complex will also produce wide fractions of light hydrocarbons (SHFLU) and methane fractions. The addition of the LDPE plant will take Russian polyethylene capacity to a total of 2.582 million tpa by 2013.

# Russian polypropylene market

Polypropylene was the least affected polymer by the economic slowdown in Russia in 2009, but even so there has been an increase in production this year in addition to exports and imports. Overall consumption rose 23,800 tons in the first half of 2010. Production facilities in Russia are theoretically capable of fully



satisfying the demand for polymers, but in practice imports are required in those product grades where shortages continue and consumers are forced to purchase from non-domestic sources. Additional capacity at Omsk is coming onstream at some stage in the near future, and the extra 180,000 tpa will probably result in significant rise in exports in the near term.

Consumption of polypropylene in Russia fell in 2009 by only around 1% and although this year demand has improved not all areas are enjoying the same level of interest. Threads and fibres have witnessed

a difficult first half of 2010, reducing purchases of polypropylene by 21% against 2009, and this has been one of the main factors explaining an increase in export activity by the polypropylene producers.

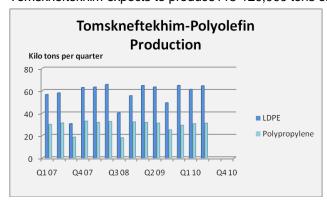
# SIBUR-Moscow polypropylene jv

SIBUR and the Moscow Oil Refinery have established a jv for the production of polypropylene after SIBUR's acquisition of a 50% share in the charter capital of NPP Neftekhimya LLC. NPP Neftekhimya LLC is an associated company of Moscow Oil Refinery, of which polypropylene production is the core business. The design capacity of the plant is 100,000 tpa, and the jv is the culmination of a process which started last year. SIBUR agreed to manage the polypropylene plant at Moscow, providing feedstocks for production and organising sales. In June this year, the Federal Antimonopoly Service (FAS) granted SIBUR Holding the right to acquire 50% in ownership. At the same time, the FAS issued conditions to SIBUR-Holding, regarding market share for polypropylene and arrangements for propane-propylene fraction supply.

The new jv will buy propane-propylene fractions from Gazprom-Neft and other suppliers competitively. The parties will consider an increase in capacity in the long term to 150,000 tpa. The partnership with SIBUR will allow the Moscow Oil Refinery to enlarge its sales market, as well as increase the efficiency of the Refinery's polypropylene production. For SIBUR, in addition to the very favourable location, the jv is part of the group's efforts to convert Russia from an importer of petrochemicals to an exporter.

#### Tomskneftekhim-polyolefin targets 2010

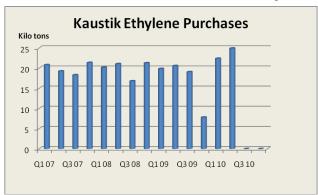
Tomskneftekhim expects to produce115-120,000 tons of polypropylene and 240-245,000 tons in 2010, which will



be slightly above levels achieved in 2009. Production was not particularly affected last year by demand, and aside the normal decline at the turnaround volumes were comparable to previous years. Production of polypropylene totalled 116,000 tons in 2009, with LDPE comprising 242,000 tpa. This year Tomskneftekhim has expanded the range of polypropylene brands through the use of a titaniummagnesium catalyst. New brands have been made with the assistance of a number of foreign companies. Through the usage of the titanium-magnesium catalyst (TMC), Tomskneftekhim hopes for an increase in production in 2011.

#### Kaustik-effects of ethylene dispute

More than a thousand employees at Kaustik were sent on an extended holiday at the end of August as PVC production had been forced to stop due to non-delivery of ethylene. Supplies were resumed from Salavatnefteorgsintez in mid-September, as the result of direct intervention by the government, but after two months the two sides will need to create a long term contract.





The contracts for the supply of raw materials for the June-July period this year amounted to 59 million roubles, which Kaustik has not paid due to disagreements over the pricing formula for ethylene. Salavatnefteorgsintez calculates the price of ethylene from the cost of hydrocarbons. Promises were made by Salavatnefteorgsintez to resume supplies of ethylene, provided that Kaustik agrees with the price of ethylene and repay the debts. In the next two months Kaustik will receive ethylene at 19,000-19,500 roubles per ton, as opposed to the price of 24,000 roubles sought by Salavatnefteorgsintez. Kaustik is managed by Bashkiria Khimya which owns 48.23% of the shares. An offshore company Modisanna in Cyprus owns 51.77% in Kaustik. Kaustik has recently approved a credit line with Sberbank for up to 2 billion roubles for working capital.

# **US imports of PVC into Russia rising**

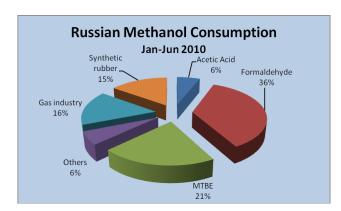
The temporary suspension in production at Sterlitamak, combined with less availability from China, placed extreme pressure on the Russian domestic market for PVC. In August, the import volume of acetylene based PVC from China fell to 11,000 tons against 19,000 tons in July. In September, imports from China have been affected by joint Sino-Kazakh military exercises which almost completely paralysed rail traffic through the junction of Alashankou-Dostyk.

In addition to these factors, Russia's largest PVC producer Sayanskhimplast incurred a short outage. Imports of PVC from the USA have been rising this year, which marks a relatively new trend in the Russian market, and has helped compensate for the structural deficit. Sayanskhimplast is expected to restart in late September whilst the resumption of production at Kaustik will help to stabilise the market.

#### Methanol & related products

#### Novatek-Metafrax

The largest independent gas producer in Russia Novatek is continuing its efforts to increase the customer base, including the supply of gas to Metafrax for methanol production. Metafrax is keen to diversify its raw material source base, without affecting its relationship with its main supplier Gazprom. Gas is supplied to Metafrax through Gazprom's subsidiary Permregiongaz.



#### Russian methanol consumption

Russian methanol consumption increased 27% in the first half of 2010. The main outlet for methanol remains formaldehyde and its derivatives, such as ureaformaldehyde concentrate, urea-formaldehyde and phenol-formaldehyde resins. From January to June 2010, the delivery of methanol to the domestic market in Russia increased by 22%, and in-processing of the product by 34%.

# **Uralkhimplast-project completions in 2010**

By the end of this year Uralkhimplast plans the launch of new reactors for phenol-formaldehyde resin

production, and an increase in production capacity for formaldehyde. The company also aims to launch a new line BAUSANO for producing plasticized PVC, and to reconstruct the production unit for polyethylene polyamine. The first plant for the production of formaldehyde 50%, with a capacity of 30,000 tpa has already been started. The second and third phases of the project are under construction and consist of 50,000 tpa of ureaformaldehyde concentrate 85% and another 50,000 tpa of 50% formaldehyde. Total project costs are estimated at 340 million roubles.

# Azot at Novomoskovsk completes second stage of granulated urea line

Azot at Novomoskovsk has completed the second stage of its project to produce granulated urea, involving a capacity of 1,150 tons per day. Total investment in the second stage has comprised around 3 billion roubles, which has been financed by Azot's holding company Evrokhim. The first line for granulated urea, part of the company's Urea-3 unit, was started in December 2009. The total production capacity has now reached 3,150 tons per day.

#### **Aromatics & derivatives**

#### Primorsk refinery, paraxylene plant?

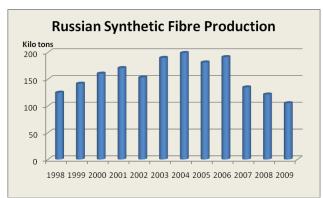
The possibility of a paraxylene plant being constructed in the Russian Far East remains in the early stages, but at least in the first phase planning has been granted to Rosneft for the refinery construction. The refinery and petrochemical complex, with a total capacity of 20 million tpa, is planned to be built at the furthest point of the East Siberia-Pacific Ocean.

The main priority will be given to producing products such as diesel fuel, aviation fuel, polypropylene, paraxylene, although capacities have yet to be confirmed. Due to geographical location, the main markets for products from the new plant are intended to be the Asia-Pacific countries. Paraxylene as with any of the petrochemicals to be produced are not intended for the domestic market.

# Kuibyshevazot-revival of fibre production at Balakovo

In accordance with previous agreements with the regional administration in the Saratov area, Kuibyshevazot has completed the full integration of the fibre plant Baltex at Balakovo. The transaction was made with the active participation of the regional administration in the Saratov area. Agreement on mutual cooperation was reached on the revival of production of nylon fabrics at the Balakovo textile mill in August this year. The main purpose of this project is to meet the needs of the Russian market of textile fabrics, and to provide products based on competitive price and quality similar imported materials.

Baltex in the past has been one of the leading Russian manufacturers of synthetic and mixed fabrics. Following the support and interest of Kuibyshevazot, hopes for the resumption in production have emerged. Kuibyshevazot is Russia's largest producer of caprolactam, polyamide and technical and textile yarns, and is interested principally in reviving the domestic textile industry.



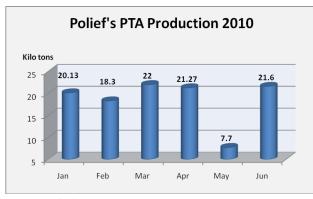
The main reason for the current status of declining production volumes in the Russian fibre industry is a systemic underinvestment over the past 10-15 years. The combined efforts of the regional administration of the Saratov region and Kuibyshevazot to revive the production of nylon fabrics at Baltex indicate the desire of the parties to develop the sector. Moreover, the acquisition is also consistent with the objectives of long-term strategic programme of Kuibyshevazot to increase domestic processing of caprolactam.

# Azot Kemerovo, hydroxylamine sulphate problems

Azot resumed partial production of caprolactam in September after suspending operations on 19 July, due to the collapse of the roof in the hydroxylamine sulphate shop. No-one was affected by the collapse, and repairs have been undertaken in compliance with safety regulations. The complete reconstruction of the hydroxylamine sulphate shop, the most important intermediate stage in the production of caprolactam, will be finished by November.

#### Polief-PTA increase in 2011

Polief has targeted an increase in production capacity for PTA in 2011 to 250,000 tpa. This will be followed



same period 2009.

in 2012 by further preparations to increase PET capacity to 220,000 tpa, involving the construction of a new installation for solid-state polycondensation. The long term aims of the company are to increase PTA capacity to 600,000 tpa and PET to 400,000 tpa. SIBUR owns shares in Polief through Domestic Polymers, which also includes shareholders VTB and Premium (owned by the government of Bashkortostan). VTB Insurance has signed a contract with Polief to cover natural disasters, illegal actions of third parties, as well as unintentional mistakes in the use and maintenance. For the first half of 2010, Polief produced 111,000 tons against 117,000 tons in the

#### **Plastics**

# PET project at Kabardino-Balkaria

Prospects for constructing a new PET plant in southern Russia have been under discussion and are being promoted by the local authorities in the Kabardino-Balkaria region of the north Caucasus. This project was originally designed to be constructed in the Stavropol region, after license agreements were signed with Lurgi Zimmer in 2007. The location of the plant has been relocated from the original site to the Maisky region in Kabardino-Balkaria, but the capacity remains the same at 486,000 tpa.

According to announcements, the project is scheduled to be undertaken in three stages to be completed in 2012, 2014 and 2015. Around 12 billion roubles is intended for investment in the project based on credits from the

Swiss bank UBS. Funds for the construction of the plant are to be provided under the guarantee of the Russian bank Rosselkhozbank. The site consists of 100 hectares where heat energy will be supplied by recycling hot water generated in the production process. This is part of the central project goals to minimise the use of energy. The plant is to be located in an area largely with a Russian-speaking population. If financial and licence agreements are confirmed the aim is to start construction in July 2011.

#### Orton takes polypropylene from Tomskneftekhim

SIBUR subsidiary Orton at Kemerovo has started the production of nonwoven geotextiles, under the trademark Kanvalan and with a capacity of 9,400 tpa. The material will be produced from the primary polypropylene technology spunbond. Total investment in the project has amounted to around 900 million roubles. Tomskneftekhim is supplying the polypropylene for the plant, delivering up to 1,000 tons per month.

### SIBUR acquires Novatek-Polymer

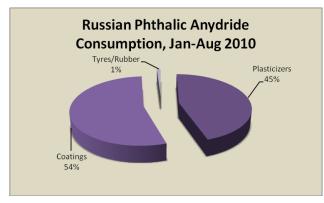
SIBUR has agreed with Novatek to buy 32% of its plastics subsidiary Novatek-Polymer. The remaining 68% will be transferred depending on approval from the Federal Antimonopoly Service. The acquisition is consistent with the strategy of SIBUR to encourage the production of base polymers through to the final product. In view of SIBUR's investments in polypropylene and other thermoplastics, the group is attempting to promote processing. Last year, SIBUR acquired Biaksplen and by taking over Novatek-Polymer the group would control the majority of the BOPP market in Russia.

Novatek-Polymer is located at Novokuibyshevsk and produces more than ten kinds of insulating tapes and films based on polyethylene and polypropylene. The company is the largest in Russia and CIS for the production of insulating corrosion-resistant materials for underground transmission oil and gas product pipelines. According to Novatek, which is Russia's largest independent gas producer, Novatek-Polymer was considered a non-core and unprofitable business. The company endured periodic problems with raw materials, as well as with sales, and thus it seemed to made good business sense to sell to SIBUR.

#### Organic chemicals

#### Russian phthalic & plasticizer trends

Exports of phthalic anhydride totalled 36,200 tons in the period January-July 2010, 9% less than in 2009. China accounted for 53% of exports. Domestic sales have increased this year due to higher demand from the plasticizer and coatings sectors. Total consumption rose 1.4 times in the first eight months of 2010 to 19,900 tons, with plasticizers accounting for 45% of shipments and coatings accounting for 54%.



DOP imports into Russia totalled 3,360 tons in the first seven months in 2010, with almost all shipments conducted over June and July due to lower domestic availability. Outages at the two main producers in Russia at Salavatnefteorgsintez and the Roschalsky Plant of Plasticizers meant that Russian consumers were forced to find suppliers of products abroad. This year, the major consumer of imported DOP in Russia was the company Tarkett, which specialises in the manufacture of floor coverings. For seven months, the company bought 3,140 tons of DOP, 93% of the gross volume of imports into Russia. Domestic production is

expected to increase in September and October, which should reduce the need for exports. The temporary shutdown of the Kaustik PVC plant at Sterlitamak, due to the stop in ethylene supplies from Salavat, resulted in a knock-effect on other industries thus reducing the demand for DOP.

# Russian solvent products, Jan-Aug 2010

Growing demand for raw materials in the production of acetate solvents has increased sale of acetic acid on the domestic market. Despite the recent increase of shipments from Azot at Nevinomyssk, sales of acetic acid on the domestic market declined 11% to 47,400 tons in the first eight months of 2010. Reduced production of butyl acetate in Russia against has continued to take place against a background of shortages of butanols. As a result, Russia reduced exports of butyl acetate by 34% in the first seven months in 2010 to 12,300 tons. Most of the product is shipped to Finland and Turkey.

#### Logistics news

Belarus, Russia and Lithuania are working on the possibility of increasing freight traffic in the direction of the ports of Kaliningrad region and port of Klaipeda. To attract transit traffic in the first half of 2010, tariffs rates were reduced for transportation of methanol by 74%, ammonia 65%, and LPGs by 70%.

Ammofos group company FosAgro has launched a modern terminal at the Cherepovets river port in the Vologda region, with a capacity of 40,000 tons of fertilisers.

Evrokhim plans to construct a dry bulk terminal at Ust-Luga on the Baltic coast in Russia for exports of fertilisers through the Baltic Sea. The terminal will include three berths with two storage facilities for fertiliser capacity and a total capacity of 340,000 tons. Evrokhim is Russia's largest producer of mineral fertilisers, is one of three European and top ten world leaders in the industry.

The project was abandoned three years ago, but the demand for fertilisers has since grown and Evrokhim has revived the plan at Ust-Luga. The location is considered to the best option for exporting fertilisers from its Verkhnekamsk potassium deposits, for which Evrokhim won the auction in 2008. Sillamjae in Estonia was previously considered as alternative but the company has now selected Ust-Luga to undertake the investment.

Russian domestic acetone sales continue to rise, with strong demand from Dzerzhinsk Orgsteklo (DOS) and Sintez at Dzerzhinsk. These two consumers accounted for 54% of total purchases in August. For the period January-August 2010, Russian domestic sales of acetone totalled 41,800 tons which was 18% up on last year. DOS has accounted for 8,600 tons of the total, having increased production of MMA in the spring.

# FAS approves purchase of DOS by Korund Go

The Federal Antimonopoly Service of Russia has approved the purchase of Korund Go of 100% of the voting shares in Dzerzhinsk Orgsteklo (DOS). The decision was taken on the basis that Korund and DOS are closely integrated and dependent on each other, and that purchase would not affect conditions for the products

# Plant of Sintanol expands capacity

The Plant of Sintanol at Dzerzhinsk, owned by Norchem, expects to complete the next stage of its modernisation by November and intends to commission additional capacity of ethoxylated products. New facilities include plants for up to 10,000 tpa of polyethylene glycol and methoxy polyethylene glycol, with equipment being provided by the Italian

company Desmet Ballestra. This will help to produce a wide range of high grade ethoxylated products. It will also reduce production costs by switching to a single-stage scheme.

The Plant of Sintanol hopes through this innovation to further strengthen its leading position in the market of raw materials for cosmetics and household products. The company's main consumers include Procter & Gamble, Henkel, Schwarzkopf, Huntsman, etc. After technical re-equipment, it will be able to fully meet the growing needs of the market in Russia in this class of products over the next decade. The total production capacity for ethoxylated products will eventually comprise 60,000 tpa.

### Synthetic Rubber

#### Krasnoyarsk Synthetic Rubber Plant

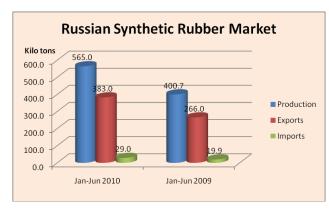
Krasnoyarsk Synthetic Rubber Plant plans to invest 2.125 billion roubles in the expansion in capacity in the period 2010-2014 that will see higher production of butadiene-nitrile rubbers in addition to the production of butadiene. Capacity for synthetic rubber production will be increased from 36,500 tpa to 56,000 tpa, whilst a new butadiene facility will have a capacity of 40,000 tpa. The bulk of the investments, or around 1.222 billion roubles, will take place in 2013 and will be financed by SIBUR.

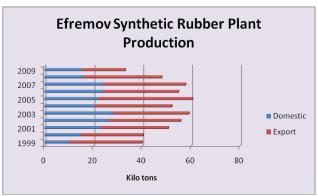
#### **Omsk Kaucuk new rubber production**

Omsk Kaucuk has started the first phase of pilot tests on the production of styrene butadiene rubber. The company is to produce synthetic latex brands which it initially looked at in 2001, but the market situation at the time did not justify further development. The conditions have now changed with interest rising and thus it was decided to revert to producing these products. Around 300 tons was expected to be produced by the end of July, and in the event of satisfactory test results the company will be able to offer a wider range of styrene rubbers.

#### Tyre news

In the first seven months of 2010, Russia increased imports of lorry tyres three-fold to 1.3 million pieces. China accounted for 28% of imports, followed by Ukraine 20% and Japan 12%. Exports increased 5% in the first seven months to 789,000 pieces, with Ukraine being the main destination accounting for 30% of volumes, followed by Kazakhstan with 25% and Uzbekistan 9%.





The start of construction of Pirelli's new jv plant at Togliatti has been postponed from late 2010 to 2012. Pirelli plans to produce 4.2 million tyres per year at Togliatti. Initially the plant will start producing tyres for trucks. Work on the construction of industrial plant will begin next year.

#### Russian synthetic market trends 2010

The demand for synthetic rubber in Russia recovered sharply in the first half of 2010, helped by a revival in the car industry. After a decimation of the market in the first half of 2010, synthetic rubber demand saw a modest recovery in the second half of the year which has accelerated in 2010. The production of tyres in Russia was up 40% in the first half of this year against last year, and total Russian demand for synthetic rubber rose to 210,000 tons. Traditionally, the market for tyres declines in the period may to August which affects the demand of synthetic rubber. In addition to increased domestic demand, export volumes have increased by 44% over the first half of 2010. The share of exports in total Russian production amounted to 68% in the first half, with China accounting for around 20% of volumes.

Polybutadiene production has been affected this year at the Efremov Synthetic Rubber Plant due largely to the lack of butadiene. Butadiene is the main raw material purchased by Efremov Synthetic Rubber Plant, bought mostly from Nizhnekamskneftekhim and other producers. Whilst output of polybutadiene at Efremov was reduced from 44,000 tons in 2008 to 30,400 tons in 2009. Nizhnekamskneftekhim increased its production of polybutadiene following expansion and since has had less butadiene for merchant sales.

#### **Derivatives & other products**

# Russki Kraski-1<sup>st</sup> half of 2010

The production of water-dispersion paints in Russia has been gradually increasing this year, resulting in a 22% increase in the first seven months against 2009 and totalling 202,270 tons. Market consumption of paints rose 14% against the same period last year, totalling 712,600 tons, whilst imports rose 13%.

Leading paints producer Russki Kraski increased turnover by 20% in the first half of the year to 1.86 billion roubles. Commodity production totalled 17,186 tons, which is also a 20% increase of the first half of 2009. The increase in gross output including semi-fabricated materials was 16% and amounted to 21,750 tons. There were also increases in production of organic coatings of 10%, water dispersions 46%, and powder coatings by 90%.

# Chelyabinsk titanium dioxide project

The Czech Export Bank intends to invest in the project \$250 million in the Chelyabinsk titanium dioxide project. One of the conditions is the use of Czech equipment and technology in production. Czech technology uses the sulphate process for production, whilst the Russian partners would prefer the chloride route. Talks are still underway over the project.

#### Polycrystalline silicon projects

Sberbank and Nitol have signed an agreement whereby Sberbank has opened two credit lines totalling 9 billion roubles for up to seven years. Funding is provided to Usolye-Siberian Silicon, part of Nitol, for the production of polycrystalline silicon. The project is being undertaken with the participation of the Russian technology group Rosnano and is located at Usolye-Sibirsk in the Irkutsk region.

As a competitor to Nitol, Titan at Omsk claims to be able to produce the most inexpensive source of polycrystalline silicon in the world. Titan owns a plant for the production of silicon metal in Kazakhstan and its own deposits of vein quartz at Karaganda, both of which help to explain the low cost of final products at the new

Omsk plant. The plant will comprise a capacity of 10,000 tpa, broken down into 7,500 tpa for solar energy and 2,500 tpa for the semiconductor industry. A full cycle of conversion of silicon-based high-tech production will be created at Omsk. Already by 2012, new raw materials will be available for use in missile and aircraft construction, microelectronics and nanotechnology.

#### Ukraine

| Ukrainian Chemical Production |            |            |  |
|-------------------------------|------------|------------|--|
| unit-kilo tons                |            |            |  |
| Product                       | Jan-Aug 10 | Jan-Aug 09 |  |
| Acetic Acid                   | 59.8       | 46.5       |  |
| Ammonia                       | 2620.5     | 1915.6     |  |
| Benzene (-95%)                | 139.0      | 101.6      |  |
| Benzene (+95%)                | 73.0       | 30.8       |  |
| Caustic Soda                  | 37.3       | 23.5       |  |
| Formaldehyde                  | 37.3       | 10.3       |  |
| Methanol                      | 49.5       | 54.5       |  |
| Polypropylene                 | 50.3       | 55.9       |  |
| Polystyrene                   | 10.5       | 9.5        |  |
| Polyvinyl Acetate             | 4.6        | 3.2        |  |
| Soda Ash                      | 450.3      | 383.3      |  |
| Titanium Dioxide              | 84.7       | 49.6       |  |
| Toluene                       | 3.1        | 2.3        |  |

# Karpatneftekhim restarts ethylene and HDPE

Karpatneftehim restarted the ethylene and HDPE plants at Kalush on 10 September, after initially seeking a restart on 26 August. The VCM plant is expected to restart in the second half of September, followed by the start of the new chlorine and caustic soda production facilities based on membrane. The new PVC plant is expected to start in the latter part of the year.

Production of ethylene, propylene, HDPE and VCM at Kalush was halted in the first half of 2008 due to economic reasons, which were exacerbated later by the global financial crisis. Karpatneftekhim was created on the basis of the former company Oriana (itself founded 1994 to replace Chlorvinyl) at Kalush. The availability of HDPE will affect

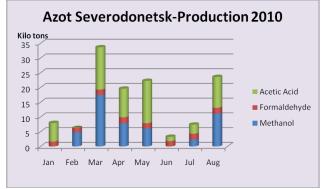
### **Crimean Soda-new power plant**

Crimean Soda has signed a contract with Chemieanlagenbau Chemnitz for the construction of a new power plant, as part of the modernisation of the company's energy system. The new power plant is aimed at reducing the cost of production of soda ash by 7-10 % over the next five years. The modernisation will include the replacement of old steam boilers with the installation of a high-grade pair of 32 MW units, which will provide around 90% of electricity to the plant.

| Ukrainian Ammonia Production (unit-kilo tons) |              |              |  |
|---|--------------|--------------|--|
| Producer                                      | Jan-Aug 2010 | Jan-Aug 2009 |  |
| Stirol  | 371.6        | 275.9        |  |
| Azot, SD                                      | 352.2        | 363          |  |
| Odessa PP                                     | 716.7        | 366.9        |  |
| Azot, CH                                      | 611.1        | 499.7        |  |
| Dneproazot                                    | 335.1        | 288.6        |  |
| Rovnoazot                                     | 233.8        | 121.5        |  |
| Total   | 2,620.5      | 1,915.6      |  |

# Stirol joins Firtash group

The Firtash Group of companies has expanded its interests in the chemical industry by incorporating Stirol at Gorlovka into Ostchem. Besides Stirol, Ostchem includes other fertiliser producers Rivneazot in Ukraine, Tadzhikazot in Tajikistan and Nitrofert in Estonia. The acquisition of Stirol will help Ostchem to expand volumes, whilst contributing to the centralisation of investment activity both in new projects and maintaining existing facilities. The sum involved for Stirol has not been disclosed, but press reports suggest in the range of \$500 million. Stirol is not the largest Ukrainian ammonia producer, but does possess other facilities such as polystyrene.



The Firtash Group is trying to secure other Ukrainian fertiliser and ammonia producers, and already has had a bid for Azot at Cherkassy turned down. Azot at Severodonetsk is up for sale and this represents another target. In addition to fertilisers, Azot at Severodonetsk also operates a large section for organic chemicals based around methanol.

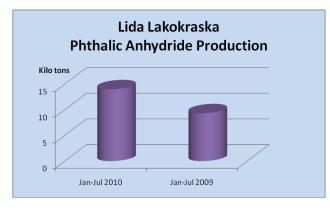
#### **Belarus**

#### Belarussian feedstocks

Belarus is insisting that Russia abolished duties on Russian oil products entering the country, but has been unable to achieve a response from Moscow. Since the start of this year Russia has applied export duties on oil products supplied to Belarus, which has had a negative impact on costs for Belarusian petrochemical producers. Profitability of the Belarusian petrochemical industry significantly declined in the first half of the year, and was 9.5% down against 2009. Russian taxes have affected

paraxylene imports, accounting for 64% of total costs for Mogilevkhimvolokno. The imposition of Russian export duty on paraxylene has automatically led to an increase in the cost of petrochemical products.

Belarus has received the first consignment of oil from Venezuela, arriving via the Estonian port of Muuga. Agreement on the supply of Venezuelan oil to Belarus was signed in March this year. According to the agreement between the presidents of two countries, total supplies could reach about 4 million tons over the next twelve months. The Naftan refinery at Novopolotsk is expecting deliveries of around 240,000 tons per month from September onwards.



#### Lida Lakokraska

Lida at Lakokraska exported 25,300 tons of products in the first half of 2010, 27.9% more than in the same period in 2009. In 2009, the company launched a new installation for the production of phthalic anhydride, which has allowed it to build up production of raw materials for paints and for export. Phthalic anhydride accounts for a large share of exports combined with varnishes. The major export destinations include Russia and Ukraine, although efforts are underway to expand into new markets such as Turkey, Egypt and Brazil.

#### Azot Grodno, January-July 2010

In the period January-July 2010, Azot increased its net profit by four-fold over the same period in 2009 and totalled 30.447 billion roubles. The company's foreign trade surplus grew from \$31 million up to \$90 million. By the end of 2010, the company plans to complete a number of projects, including the upgrading of the urea-3 facility and putting into operation a new unit on producing fatty acid methyl ester (FAME). The upgrading of the urea-3 facility will allow the production of granulated urea to increase by 400 tons per day. After the introduction of FAME unit with the capacity of 30,000 tpa, the company will boost the FAME production out of rapeseed oil by four times to become one of the main biodiesel fuel manufacturers in Belarus. The long term strategy of Azot is to expand its production capacitates by 40%, including the shutdown of outdated facilities and replacing them with modern units.

Azot and Khimvolokno at Grodno plan to establish a jv with Kuibyshevazot, which will specialize in the production of polyamide-6. Currently, negotiations are under way to construct a 35,000 tpa fibre plant which will probably be built on the site at Kuibyshevazot.

# Central Asia & Kazakhstan

#### Sumgait cracker restarts

Azerkimya will restart the ethylene and polyethylene plants in the near future after maintenance conducted by the holding company SOCAR. The cracker is expected to operate at a much higher rate than prior to the revamp. The improvements in the cracker have been assisted by Petkim, which has provided new instrumentation which will help production to operate with fewer interruptions. Modernisation is expected to continue to improve the gas separation systems, compressor, heat exchangers and water cooled systems. Naphtha is the main feedstock used in the EP-300 plant, but Petkim has made alterations that will allow the usage of C4s.

#### Fertiliser upgrades-Uzbekistan

The Research and Design Institute of Urea and Organic Synthesis Products (NIIK, Dzerzhinsk) has won a tender for the modernisation and technical re-equipment of urea production plant at Maxam-Chirchiq in Uzbekistan. According to tender terms, NIIK will be in charge of the whole project from concept and basic design through to commissioning.

The deadline has been established as December 2011, which provides little time for delay. The project will help Maxam-Chirchiq to increase urea capacity from 170,000 tpa to 270,000 tpa. Maxam-Chirchiq, formerly Elektrohimprom, was commissioned in 1940 and specialises in the production of ammonia, ammonium nitrate, and urea. MaxamCorp purchased a 49% stake at Elektrohimprom in 2007 for \$22 million in 2007. The company undertook obligations to invest \$55 million in the first five year period of its involvement.

Maxam-Chirchiq started the reconstruction of the ammonia plant in 2009, which has already been completed. Ammonia capacity has been increased by 72.3% to 420,000 tpa. The projects to upgrade ammonia and urea production have been calculated to save Maxim-Chirchik up to 326 cubic metres of natural gas per ton of product.

Also in Uzbekistan, Ferganaazot is to modernise its fertiliser plant in which \$9.1 million will be invested prior to the end of 2011. The modernised technology will reduce energy losses for the production of nitric acid, whilst \$9.8 million will be invested to increase urea capacity from 270,000 tpa to 330,000 tpa. For the next few months, the company will concentrate on the technical pre-planning and preparations for the investment programme. Regarding finance, Ferganaazot aims to provide \$4.2 million from its own sources, to receive \$17 million as credit from the Uzbek Fund of Reconstruction and Development, and \$3.8 million of bank loans. Other chemical projects in Uzbekistan include the production of potassium chloride at Dehkanabadsky which is intended to have a capacity of 200,000 tpa.

# Chemical production in Caucasus & Central Asia

In the first half of 2010 the Uzbek state holding Uzkimesanoat increased turnover by 2.3% over the same period last year, to 468.7 billion soums. A total of 557,000 tons of fertilisers were produced, comprising 482,800 tons of nitrogen and 74,300 tons of phosphate. Uzkimesanoat has started the export of new types of chemical products such as methanol grade A, ammonium nitrate, sodium nitrate, pipes and mono-ammonium phosphate. The production of potassium fertilisers will soon be launched in Uzbekistan, half of which is expected to be exported.

Revenues in the Armenian chemical industry in January-June this year amounted to 4,893.9 million drams, which is 9% more than in 2009. Plastics production increased 21.9% to 4,496.6 tons, whilst paints increased by 15.7% to 4,984.5 tons. Cleaning and washing chemicals increased by 22% over the same period last year, amounting to 1,216.6 tons. Other products included 960 tons of caustic soda and 1,083 tons of synthetic rubber. Chemical exports comprised 0.28% of total exports from Azerbaijan in the first six months this year. Whilst showing an improvement against 0.23% in 2009 the share in total exports remains very small against oil and gas. Chemical production rose 3.77 fold in the first six months of 2010 against the same period last year.

# Shurtan ethylene expansion from LUKoil's gas development

Ethylene capacity at the Shurtan Gas Chemical Complex in Uzbekistan is being targeted for \$400 million of investment in the next few years, with the aim to increase capacity by 100,000 tpa. It is planned that the additional ethylene will be produced from gas produced by LUKoil under production sharing agreements in South -West Hissar. The project is now under pre-feasibility study. LUKoil acquired 100% of SNG Holdings Ltd in 2008, including the company Soyuzneftegaz East Limited, which is party to the PSA for oil fields in South-West Hissar and the Ustyurt region in Uzbekistan. LUKoil expects to produce about 3 billion cubic meters of gas and 300,000 tpa of liquid hydrocarbons.

Around 20% of HDPE production at the existing gaschemical complex at Shurtan is sold domestically and the remainder does into exports. In the domestic market most of the sales are conducted through the

Uzbek clearing chamber. In the first half of this year almost half of the market sales were polyethylene film grades, followed by injection grades and blow grades.

# Shurtan polyolefin pipe plants

The Shurtan Gas Chemical Complex is undertaking two new projects to produce polyethylene and polypropylene pipes. The first plant will produce 8,600 tpa of polyethylene pipes with a diameter from 75 to 630 mm, with investments comprising \$7.2. The second plant consists of a 2,300 line km of polypropylene pipes with diameters from 16 to 63 mm. The total project cost was 5.2 million dollars, with over 50% of production aimed at exports.

# Atyrau aromatics complex

Construction of the aromatics complex at Atyrau was started by Sinopec Engineering on 4 September. The project to construct paraxylene and benzene facilities is costing \$1.65 billion. Credits for the project were agreed this year with the Development Bank of Kazakhstan for loans from China Exim Bank (around 85% of the total) and the remaining 15% from the National Fund of Kazakhstan. The project will convert the Atyrau refinery into a single chain of petrochemical production, and introduce innovative technologies that meet the high level of environmental European standards.

Non-governmental organisations and residents of in Atyrau were concerned about the dangerous expansion of production in the refinery, located close to the regional centre. Around 2,000 Chinese workers were intended to be used for the construction, but visas have not been granted. By 2015, the total capacity of oil refineries in Kazakhstan should reach 17 million tpa against 14 million tpa at present.

# Relevant Currencies

Czech crown. Kc. \$1=20.85. €1=25.5671: Hungarian Forint. Ft. \$1=223.5. €1=274.065: Polish zloty. zl. \$1=3.1135. €1=4.065: Bulgarian leva: \$1=1.5956. €1=1.9596: Romanian Lei. \$1=3.4151. €1=4.187: Croatian Kuna HRK. \$1=5.9239. €1=7.2641: Ukrainian hryvnia. \$1=7.931. €1=9.7253: Rus rouble. \$1=31.022. €1=38.0405

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