Chemical Information Resources for East Europe and CIS

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

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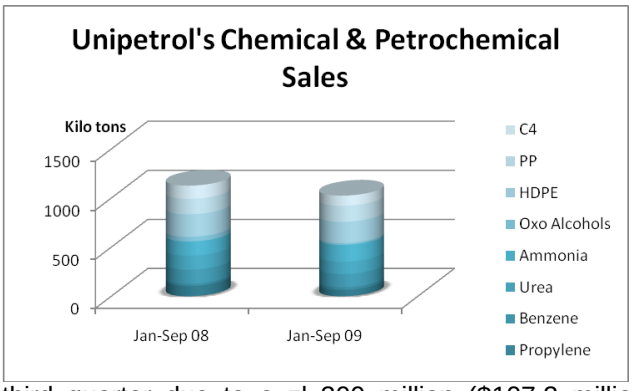
- Novacke Chemické Závody (NCHZ) has filed for bankruptcy to shield itself from creditors
- Oltchim's state guarantees are being examined by the European Commission
- The concept of a new cracker at Nizhnekamsk may be revived in the coming months
- The Omsk polypropylene project is scheduled to start in the fourth quarter of 2010
- Benzene production in Russia has continued to increase as the year has progressed, although volumes still remain lower than for 2008
- Sberbank has granted Kazanorgsintez a loan of 30 billion roubles under state guarantees
- Russian propylene production fell 8% in the period January-September 2009
- Russian caprolactam exports totalled 177,100 tons in the period January-September 2009, 2% more than last year
- SIBUR-Holding has delayed the investment programme for Tomskneftekhim by two years, involving an expansion of capacities for polyethylene and polypropylene
- Solvay plans to confirm the purchase of Berezniki Soda Plant and Berkhimprom in 2010
- Phenol consumption totalled 119,000 tons in the period January-August 2009, which was 16% lower than in 2008
- SIBUR-Volzhskiy plans to start the production of polyester cords in May 2010, with production reaching tyre plants in Russia by the fourth quarter of next year
- Russian methanol consumption totalled 1.072 million tons in the first three quarters in 2009, 13% down on the previous year
- Togliattikaucuk is undertaking a major restructuring of its production activities
- Karpatneftekhim has decided to delay start-up of the new chlorine-caustic facilities at Kalush from 2009 to 2010
- Kogas has stated that it will delay the development of a natural gas project in Uzbekistan by two years to 2014 because of uncertainty about its estimated reserves
- The EBRD has approved a $120 million loan for AZMECO Company for the construction of a methanol producing plant in Azerbaijan
- The Chinese company Sinopec has been awarded a tender worth over a $1 billion to construct the benzene and paraxylene facilities at Atyrau

CENTRAL & SOUTH EAST EUROPE

Petrochemicals

Unipetrol-Q3 2009

Unipetrol expects to post a better third-quarter operating result after experiencing losses in the first and second quarter of this year. The main factor that influenced the petrochemical division in the third quarter was a slight improvement in demand of 2% against the second quarter. Overall, volume sales for petrochemicals were lower than in the first three quarters of 2008, with ethylene dropping from 104,000 tons to 65,000 tons. The main impact on aggregate sales has come from the discontinuation of oxo alcohol production at Litvinov, which meant that only 18,000 tons was produced in the period January-September 2009 against 47,000 tons in 2008.



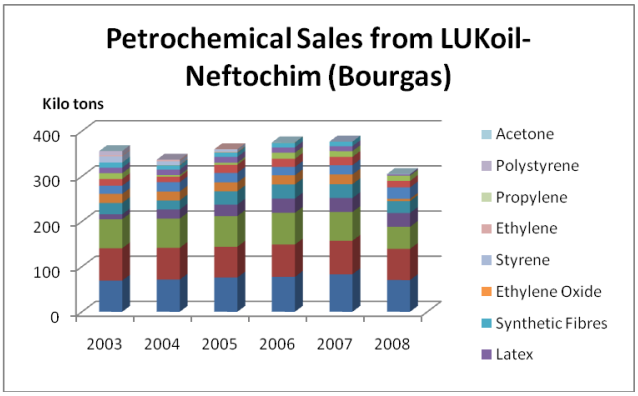
Profits for Unipetrol have been affected by an unplanned one week shutdown of the steam cracker due to a technical issue in the polypropylene unit, impacting on the polyethylene units. On the plus side, margins have been helped by increasing prices for olefins and polyolefins of 47% and 6% respectively. In the refining division, crude oil processing increased 40% against the third quarter although low refining margins remained unchanged.

PKN Orlen-Mazeikiu

PKN Orlen expects to post an operating profit in the third quarter due to a zl 300 million ($107.3 million) gain from inventory valuation. However, refining margins at PKN Orlen dropped in the third quarter, and are expected to have a bearing on the quarterly results. Due to the low margins, Mazeikiu Nafta in Lithuania has been forced to cut production to 70-80% of capacity against 95% under normal conditions. In addition to weak refining margins, transportation costs are high for Mazeikiu as it is forced to deliver crude by sea to the Klaipedos oil terminal and from there by train to the refinery. PKN Orlen wants to take over control over Klaipedos from the Lithuanian government and build a pipeline connecting it with Mazeikiu in order to improve efficiency. At the moment, Mazeikiu Nafta is losing money and its profits only come from one-off inventory revaluations. The refinery processed 9.7 million tons of oil in 2008.

Butadiene Kralupy

The Unipetrol-Synthos jv expects to start up the new butadiene plant at Kralupy in the first quarter of 2010. The capacity of the plant is 120,000 tpa, with construction reported to be almost completed. After production is started, Butadiene Kralupy will supply Synthos Kralupy with butadiene; whilst the rafinate 1 produced will be supplied to companies affiliated to Unipetrol.



South East European petrochemicals

LUKoil-Neftochim has closed its divisions for polymers and petrochemicals at Bourgas due to weak economic conditions. The temporary closure will be used for renovation and modernisation of the petrochemical facilities, whilst oil processing remains unaffected.

Croatian polymer producer Dioki has been faced with problems in paying electricity bills to HEP (Croatian Electrical Utility). Dioki has stated that all debt is paid back as it matures. Rompetrol Rafinare started a planned shutdown of its oil refinery Petromidia on 17 October until 3 November. **The** maintenance is being carried out by Rominserv at Rompetrol's catalytic cracking unit and other units that can be performed only when off-line. The company recorded a record amount of processed crude oil in 2008 of 4.2 million tons, from 3.7 million tons in 2007 and 1.15 million tons in 2000. For 2010, the oil company expects an increase in annual crude processing capacity to 5 million tons.

In Serbia, NIS plans to increase its ownership share in HIP Petrohemija to 25.7% from 15.8%. The increase is expected to take place in November as part of the debt restructuring of Petrohemija. The total debt of Petrohemija to NIS comprises $87 million. NIS, which is owned by Gazprom-Neft, is considering increasing the ownership to 51% which would allow greater synergy with the petrochemical complex.

Chemicals

Synthos-investments

Synthos has started construction of a $143 million polybutadiene rubber plant at Kralupy, with a capacity of 80,000 tpa. The plant will use Michelin's neodymium (Nd) catalyst technology, with the first deliveries expected to be made by mid-2011. The neodymium technology is claimed to be more environmentally friendly, which means less energy is needed than for previous systems.

Michelin, as the supplier of the technology, will also be a customer for part of the production, according to a long-term contract. The remainder of the production will be sold under the brand of Synthos to other manufacturers in Europe and around the world. The market is expected to see an increase in demand for PBR Nd rubber, owing to a resolution adopted by the European Parliament in May 2009 establishing the maximum permissible values associated with the use of car tyres.

Polish Chemical Production (unit-kilo tons)

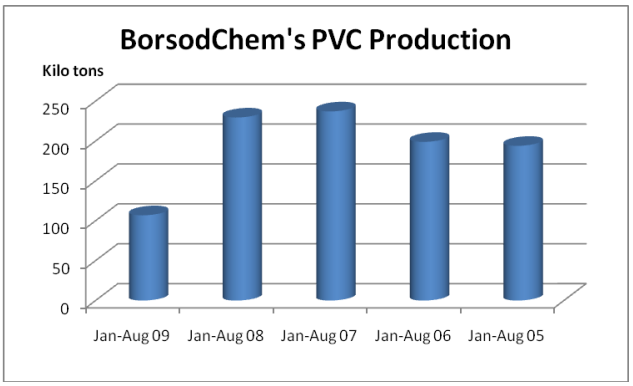
Product	*Jan-Sep 09*	*Jan-Sep 08*
Caustic Soda	57.8	65.9
Soda Ash	664.6	1034.4
Ethylene	374.7	402.5
Propylene	261.5	280
Butadiene	38.5	41.6
Toluene	70.4	93.5
Phenol	23.7	33.3
Caprolactam	103.3	117.9
Polyethylene	244.1	258.6
Polystyrene	93.7	90.2
PVC	193.9	192.3
Polypropylene	190.5	191.3
Synthetic Rubber	98.347	96.331
Pesticides	17.3	25.79

The new butadiene extraction unit at Litvinov, the only greenfield butadiene capacity to be built in Europe for many years, will increase the company's backward integration to butadiene, as well as being able to increase rafinate 1 supplies to the neighbouring refinery. Another investment being undertaken by Synthos is at the Dwory division at Oswiecim, where automation is being added at the end of the styrene-butadiene rubber production line, allowing the company to serve its customers in returnable metal boxes. The value of the investments realised within Synthos in Poland and the Czech Republic over the next two years will total around €100 million.

BorsodChem reaches agreement over debt restructuring

Permira has secured a deal to restructure the debts of BorsodChem which will allow the UK private equity fund to thwart a Chinese takeover and to retain its control. The Hungarian government will also be providing a €100 million loan to BorsodChem as part of the restructuring. BorsodChem announced that together with its majority shareholder, it had signed an agreement in principle with Wanhua Industrial over a restructuring of its €1.1 billion debt and Wanhua's mid-term role as a minority shareholder.

As part of a deal struck, Wanhua will provide around a third of the €80 million in new funds in exchange for equity. While the terms of the agreement and equity split among the new shareholders is still being finalised, Permira is to keep majority control and Wanhua's equity stake will be less than 50%. Permira has confirmed reports that it is not planning to sell its stake in BorsodChem for at least another 3-4 years. Whilst the government does not wish to interfere actively between the market players, it is insistent on keeping BorsodChem running and to guarantee the safety of jobs.



NCHZ-files for bankruptcy

Novacke Chemické Závody (NCHZ), one of nine chemical companies fined by the European Commission for creating a cartel for calcium carbide, has filed for bankruptcy to shield itself from creditors. It is also seeking to annul a fine of almost €20 million levied by the EC. The company decided that because of the fine the company would undertake bankruptcy proceedings to protect it from creditors and avert any potential threat to its operational and payment capabilities. The aim is to continue the company's operations, whilst the company has also filed an action

with the Court of First Instance in Luxembourg for annulment of the decision to impose the fine and asked for suspension of enforcement of the decision.

NCHZ claims that the amount of the fine is bankrupting in nature and is in contradiction with EU legislation in which fines can be punitive and corrective but never so high as to destroy a company. However, there the EC seems fairly strict on cartels and is not indicating a possible withdrawal of the fine. This puts NCHZ in a difficult situation and one that has forced it to take extraordinary measures to protect its interests.

Although in bankruptcy, NCHZ is showing vitality and should continue operations. NCHZ has shown good economic results over the first eight months of this year, and if it did not need to deal with a €19.6 million fine levied by the European Commission for participating in a cartel it would have posted a profit of €1.5 million.

Chemlon halts production

The synthetic fibre producer Chemlon Humenne has decided to lay off all of its three hundred employees, after the company failed to reach an agreement with its energy supplier Chemes. Chemlon Humenne stopped operation on October 12 due to halted supplies of energy caused by unpaid debts estimated at around €3.3 million. With no signs of a return to production in the near future, there are concerns that Chemlon will announce bankruptcy by the end of 2009. The energy company Chemes is the owner of Chemlon's premises and is refusing to allow deliveries to the site. Whilst Chemlon has been active in trying to resolve sales and supplies for its customers, the issue of inputs is decisive from the point of view of production. Chemlon has stated that it is talks with a strategic investor at present, which provide a solution to the energy-debt dilemma.

Oltchim-state guarantees

The European Commission has opened its in-depth investigation into the €135 million debt-to-equity swap and €229.2 million state guarantee for Oltchim. Minority shareholder PCC has urged EU antitrust regulators to look into the Romanian state guarantee to see if it complies with EU state aid rules. The Romanian government, which owns almost 54% of Oltchim, is providing the guarantee for a bank loan for the company to buy petrochemicals assets from Petrom. In essence, Oltchim and PCC have been in disagreement over the future strategy, focusing particularly on the acquisition by Oltchim of the Arpechim petrochemical complex. PCC is opposed to the acquisition, favouring a general strategy for Oltchim concentrated on polyols rather than petrochemicals.

Hungarian plastics

German electrical component manufacturer OBO Bettermann is expanding its industrial cable and plastics parts production plant at Bugyi in Hungary, with the help of EU funding. The company is investing around €18.3 million to construct an additional two production halls at Bugyi. Pannunion Packaging has won state backing for a two year investment programme that will see it expand rigid sheet capacity and introduce new technology at its main plant at Szombathely. Pannunion, formerly known as Pannonplast, plans total investments of €3.7 million and has been granted aid under the government's New Hungary Development Plan (NHDP) of around €841,000. The NHDP is providing funding to companies prepared to invest within the next two years.

Pannunion's Szombathely plant produces out a range of rigid polystyrene, polypropylene and PVC film products and possesses a total PP and PS sheet capacity of 12,000 tpa. Apart from extending sheet capacity under the plan, the company will introduce a wider choice of packaging decoration through new technology and invest in efficiency improvements. Pannunion operates other sheet extrusion and thermoforming plants in Romania, Serbia and the Ukraine. For the first half of 2009, the company reported a net loss of €132,825 against a net profit for 2008 first half of €561,265. However, revenue rose 3% during the period to more than €22.1 million.

RUSSIA

Russian chemical trade & production Jan-Sep 2009

Russian chemical production was recorded at 14.9% lower in the period January-September 2009 than last year. By the end of the year the rate of decline will be much lower, with production in the fourth quarter expected to be better for many products than in Q4 2008. The Russian government expects the economy to decline by 7.5% in 2009, but could possibly see a modest recovery of 2% in 2010 if oil prices remain

positive. The main obstacle to growth could be a strengthening rouble which would reduce the export capability of certain industries, including chemicals, and also make conditions easier for importers to compete in the domestic market.

The exchange rate has recently dropped to under 30 roubles to the dollar for the first time this year. Exports of chemicals to China have been revived in 2009 and Russian producers have made considerable profits from shipments, but could be affected if the rouble continues to hold its stronger value. Exports of phthalic anhydride, orthoxylene, acrylonitrile, etc, have been a feature of trade with China this year.

In the period January-September 2009, Russian production of mineral fertilisers fell by 19.3% to 10.7 million tons, whilst ammonia fell 4.5% to 9.5 million tpa. Soda ash fell 14.4% to 822,000 tons whilst plastics and resins dropped 4.6% to 3.2 million tons, synthetic rubber 29.2% to 679,000 tons and tyres 34.1% to 20.4 million pieces. Fibre and thread production totalled 76,171 tons, which was 26% down on 2008.

Russian Chemical Production (unit-kilo tons)		
Product	***Jan-Sep 09***	***Jan-Sep 08***
Ethylene	1638.2	1749.8
Benzene	743.6	879.8
Styrene	361.1	443.5
Phenol	113.6	168.6
Polyethylene	1034.8	943.0
Polypropylene	431.1	378.2
PVC	404.1	430.9
Polystyrene	187.8	193.0
Butanols	188.4	194.9
Methanol	1588.7	2637.3
Syn Rubber	679.5	932.6
Caustic Soda	822.3	1000.8
Soda Ash	1727.0	2134.7
Ammonia	9475.0	9864.7

Polypropylene and polyethylene production totalled 431,806 tons and 1034,848 tons respectively for the first nine months of 2009, both products slightly higher and remaining resilient. However, PVC production dropped 8% to 404,131 tons and polystyrene dropped to 187,756 tons.

Under pressure from PVC and caustic soda producers, the Russian parliament has introduced import duties for both products from September. The import duty for PVC has been set at 15%, with €70 per ton set for caustic soda and for both products these will run for nine months. The caustic duty has been approved after pressure from Russian producers in response to Chinese competition. In the first eight months of 2009, Russia imported 4,300 tons of caustic soda from China.

Associated Gas/Feedstocks

Yakutia potential for petrochemical projects

Appraisals are being examined for developing the Chajandinsky deposit in the Far East region of Yakutia for a potential gas petrochemical project, in the post 2016 period. The general outline of the investment scenarios include pipelines that need to be constructed to supply gas through East Siberia to the Pacific region for export, whilst at the same time reviewing the construction of the Yakutsk Gas Chemical Complex. The proposed complex is to be constructed at Lensk near the Lena River in East Siberia, with the aim of producing ethylene from ethane leading to polyolefins.

The lack of infrastructure has been a major obstacle for petrochemical projects in East Siberia until and whilst measures are being taken, these do represent the only the initial phases. In September, the Omsk based company Omsktransproject reached agreement on the development of five railways in Yakutia for an overall length of 270 km. This project will cost 1.195 billion roubles and is part of the entitled programme Integrated Development of South Yakutia. New railway lines, to be completed in 2010, are intended to link industrial companies of Yakutia and BAM, and the Transsiberian railways.

SIBURTyumenGaz

The Belozern GPK, which is part of SIBUR's jv with TNK-BP Yugragazpererabotka, has been able to increase associated gas processing by 50 million cubic metres this year, in addition producing another 10,000 tons of SHFLU. Increases have been made possible due to the reduced amount of maintenance downtime. Nyagangazoerebotka, in the Khanty-Mansiisk region of West Siberia, has completed the modernisation of its processing units that will allow an increase in output of propane-butane feedstocks from 52,000 tpa to 180,000 tpa. The modernisation, which has cost SIBUR 460 million roubles, has been part of the process to intensify processing levels for associated gas, leading to higher value fractions. Aside environmental goals, by increasing value fractions from 51% of processing to 70%, Nyagangazoerebotka is expected to increase turnover by around 140 million roubles per annum. C3 processing is expected to increase further in 2010 or 2011 to 270,000 tpa. .

Russian Chemical Production & Capacity 2005-2008 (unit-kilo tons); P=Production, C=Capacity								
Product	**2005 - P**	**2005 – C**	**2006 – P**	**2006 - C**	**2007 - P**	**2007 - C**	**2008 - P**	**2008 – C**
Acetic Acid	171.4	160	166.6	160	162	160	140.1	160
Acetone	162.3	206.4	160.7	206.4	139.4	206.4	124.3	206.4
Acrylic Acid	25.8	29.2	32.1	29.2	35.9	29.2	36	29.2
Acrylonitrile	142	120	146.5	120	122.5	120	125.5	120
Aniline	60	104	57.9	104	54.8	104	58.2	104
Benzene	1162.6	1861.2	1152.7	1878.8	1310	1878.8	1007.2	1878.8
Butadiene	444.9	535.2	419.9	535.2	459.2	535.2	436.1	535.2
Butanols	280.7	285	268	285	268.6	285	236.1	285
Caprolactam	303.4	285.6	316	285.6	340.9	406	344	406
Carbon Black	678.9	720	628.1	720	657.8	720	631.2	720
Caustic Soda	1131	1211.6	1226.8	1267.4	1194.6	1323.2	1157.2	1323.2
Epichlorohydrin	53.6	88	59.4	88	69.9	88	67.5	88
Ethylbenzene	553.8	692	547.5	692	624.6	692	621.4	692
Ethylhexanol	109.8	210	108.4	210	116.9	210	112.9	210
Ethylene	2101.9	2734.4	2146.3	2814	2314.6	2887.5	2336.6	2998.2
Ethylene Oxide	523.9	666.3	548.5	706.3	565.4	706.3	570.2	711.3
Isoprene Monomer	435	365.2	402.8	395.2	424	395.2	430.1	395.2
Isopropanol	33.6	35	36.4	35	25.6	35	27.8	35
MEG	379.3	427.1	443.2	449.6	469.1	449.6	354.6	449.6
Methanol	2934.7	3527.2	3155.8	3657.2	3514.4	4062.2	3468.5	4117.2
MMA	26.5	32	26.6	32	25.9	32	6.5	32
Neonols	115.1	140	121.8	140	117.8	140	79.2	140
Orthoxylene	222.2	390.4	208	390.4	238.8	390.4	207.3	390.4
Paraxylene	233.7	430.4	262.7	430.4	335.3	430.4	321.3	430.4
PET resin	0	52.4	60	119.9	156.3	182.4	182	257.4
Pentaerythitol	12.7	20	16.2	20	19.5	20	20.7	20
Phenol	243.6	320.4	221.3	320.4	238.9	324.1	217.5	335.2
Phthalic Anhydride	103.8	112	97.6	112	126.3	112	93.6	112
Polyamide-6	81.5	150.3	100.6	199.3	126.6	226.3	129.1	226.3
Polyethylene	1048.8	1047.6	1074.2	1210.2	1243.4	1352.8	1268.3	1502.5
Polypropylene	301.5	305.2	378.3	395.2	491.1	545.2	509.1	605.2
Polystyrene	227.9	241.9	278.6	308.2	279.9	358.4	268.6	358.4
Propylene	1170.8	1307.6	1136.9	1332.1	1302.2	1407.6	1259.3	1559.6
Propylene Oxide	70	75	69.5	75	56.3	75	61.1	75
PTA	14	28	169.4	201.3	177.1	230	173.4	235
PVC	579.7	597.2	591.1	597.2	615.8	607.2	579.8	611.2
Soda Ash	2582.3	2700	2810.4	2700	2893.9	2700	2721.7	2700
Styrene	587.9	566.8	614.8	623.2	645.7	623.2	577.8	623.2
Synthetic Rubber	1143.9	2127.6	1134	2149.6	1209.1	2175.6	1138	2175.6
VCM	600.4	638.4	614.2	663.2	583.1	663.2	586.3	663.2
Aggregate Tonnage	21,054.90	25,546.60	22,009.80	26,658.50	23,753.20	27,859.40	22,686.10	28,446.90
Average Utilisation %		**82.4**		**82.6**		**85.1**		**79.3**

A breakdown of production and capacity by individual company and location is available on CIREC's Statistical Database at www.cirec.net.

TNK-BP, Orenburg

TNK-BP plans to construct a small gas processing plant for associated gas in the Orenburg region for start-up in 2012. The capacity of the plant will be 450 million cubic metres per annum and will be aimed at the production of propane and butane. This is part of TNK-BP's [programme for increasing utilisation of associated gas, which currently stands at around 80% and needs to be increased to 95% by 2012.

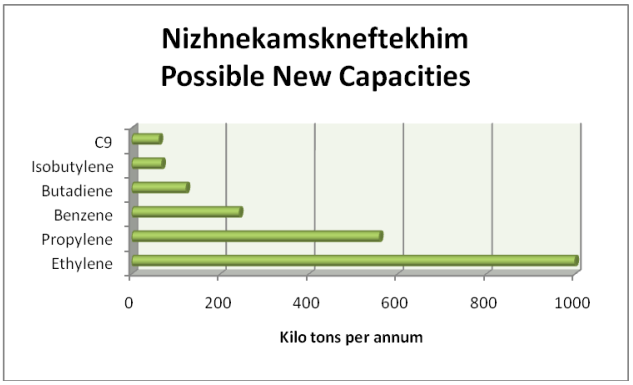
The new plant, in addition to other processing arrangements, will help TNK-BP to bring the overall level of flared associated gas utilisation up to almost 100% by 2012. TNK-BP is already in the process of revamping gas pipelines and gas compression stations as well as expanding the company's existing Zaikino gas processing plant in the Orenburg region.

Petrochemicals

Nizhnekamskneftekhim assessing investment options

Tatneftekhiminvest-holding aims to discuss the possible investment scenarios for Nizhnekamskneftekhim at its November scientific and technical meeting. The concept of a one million ton cracker at Nizhnekamsk may receive resumed interest, with Nizhnekamskneftekhim recognising that it needs to expand its olefin base. As with most major Russian petrochemical project ideas, the construction of another cracker at Nizhnekamsk has been under debate for some time.

Three years ago, Nizhnekamskneftekhim announced that it wanted to construct a one million ton cracker in the 2012-2015 period with a required investment sum of 130-140 billion roubles. As a result of these investments, Nizhnekamskneftekhim would be able to increase ethylene capacity to 1.6 million tpa. However, formative planning for the new cracker was only to start after the completion of the expansion of the current cracker from 450,000 tpa to 600,000 tpa. This has been completed in the past twelve months, but any further investment decisions have tended to be delayed due to the onset of global financial problems.



The start-up of the new 230,000 tpa HDPE plant at Nizhnekamsk in February this year has impacted on ethylene availability for Nizhnekamskneftekhim, not only for captive consumption but also for sales of merchant ethylene by pipeline to Kazanorgsintez. By building a new cracker would namely help Nizhnekamskneftekhim to develop its own petrochemical production further, whilst providing the ethylene for Kazanorgsintez to expand its own polyethylene. Such a strategy may be sufficient to keep Kazanorgsintez away from the hands of Gazprom and SIBUR, which have both shown interest in taking control over the company.

As a result, Tatneftekhiminvest-Holding is examining ideas for expansion and development at Nizhnekamskneftekhim. The general objective includes aims to process liquid and gas raw materials based on eight furnaces supplied by KBR. Nizhnekamskneftekhim has investigated seven scenarios of processing of different combinations of raw materials.

Ethane would provide the cheapest source of feedstock, but the supply does look a feasible option for the complex. An alternative is naphtha and gas condensate which could be supplied from the new Taneko refinery under construction and next door to Nizhnekamskneftekhim. Sourcing feedstocks through TAIF would provide some semblance of security, compared to ethane which would be dependent on Gazprom. A typical feedstock mix for large-scale cracker could include naphtha, pentane, liquid gas and natural gas. A hypothetical capacity mix would include one million tpa of ethylene, 559,000 tpa of propylene, 243,000 tpa of benzene, 123,000 tpa of butadiene, 68,000 tpa of isobutylene and 62,000 tpa of C9 fraction.

Capital investments in the new olefin/petrochemical project in December, 2008 were estimated provisionally at 83 billion roubles. Not all the products have a natural home; for instance additional butadiene would be difficult to use unless old project ideas such as chloroprene rubber are revived. A chloroprene plant was examined in the Soviet period but was not taken forward. Possibly a project 40-50,000 tpa could be undertaken to meet demand from the tyre and resin industries. Nizhnekamskneftekhim envisages no

problems accounting for isobutylene in the production of butyl rubber and also in the use of benzene. Other possible projects include 160,000 tpa of simple polyethers and increasing synthetic rubber capacity to 780,000 tpa from 476,000 tpa.

Russian propylene production, Jan-Sep 2009
Exports of propylene from Russia have dropped this year to 13,500 tons in January-September, around a third of the volumes achieved in 2008. Increased captive consumption has restricted availability for merchant sales, both for the domestic and export markets. Russian propylene production fell 8% in the period January-September 2009 against the previous year, dropping to 843,000 tons. The drop was due to the reduction of volumes at Stavrolen following the accident which took place in March, and lower production at SIBUR-Neftekhim owing to a long shutdown in July.

Only polypropylene of the propylene derivatives has witnessed an increase in production this year, whilst other derivatives all saw lower production. Polypropylene output rose 13% in the first nine months of 2009, whilst phenol was the major faller dropping 15% and acrylonitrile fell 8%. Acrylonitrile production from Saratov was helped by export volumes to China. Propylene has been tighter lately and pricing has been rising subsequently. Future exports of Russian propylene are expected to fall further as producers develop derivative capacities.

Sberbank agreements with SIBUR and Kazanorgsintez
SIBUR Holding and Sberbank have signed two agreements to open the $400 million credit lines with a four-year term. The funds will be used to finance the company's current activities including replacement of credits allocated by another banks. The attraction of the Sberbank credit will allow SIBUR to improve the structure of the loan portfolio in the context of extension of credit payments period. It also helps with the diversification of relations with banks, in addition to reducing the company's leverage.

On a much larger scale, Sberbank has granted Kazanorgsintez a loan of 30 billion roubles under state guarantees. This will be directed towards a repayment of bank debts, amounting to 27.9 billion roubles at the last calculation. In addition, Kazanorgsintez could face the need to repay Eurobonds worth $200 million as a result of infringement on their release. The Sbebank loan will allow Kazanorgsintez to refinance its debts in full and to avoid bankruptcy.

Tomskneftekhim-investment delays
SIBUR-Holding has delayed the investment programme for Tomskneftekhim by two years. This involves the expansion of capacities for polyethylene and polypropylene, in addition to modernisation of the cracker. The plans for Tomskneftekhim are not expected to be completed prior to 2013, against the previous date of 2011. After the results from the first half of the year, SIBUR has reassessed the position regarding investment, and has concluded that Tomskneftekhim probably takes priority after the Tobolsk and Kstovo projects. The main aim of the investment programme involves the expansion of ethylene from 300,000 tpa to 360,000 tpa and increases in polyolefin capacity by a total of 230,000 tpa.

Bulk polymers

Omsk polypropylene project
The Omsk polypropylene project is scheduled to start production in the fourth quarter of 2010, with the most important parts of construction completed. The reactors are already in place and Titan expects to outlay a total of 4.3 billion roubles on the project. The plant size is 180,000 tpa and will compete against imported grades of polypropylene for the production of packaging, building materials, etc.

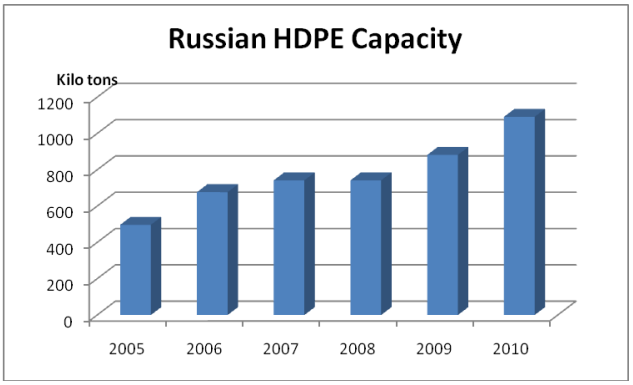
Russian polypropylene imports
Russia imported 9,170 tons of polypropylene in September, 13% more than in August but 14% lower than in September 2008. In total, Russia imported 62,790 tons of polypropylene in the period January-September 2009 which was 31% less last year. Imports into Russia in 2009 have come from Ukraine (26%), Turkmenistan (21%) and Poland (13%). Reduced imports have been the result of lower consumption combined with additional Russian production of polypropylene. Polypropylene production rose 13.9% in the first nine months of 2009, totalling 431,100 tons.

Despite financial and economic difficulties polymer volumes have increased at all Russian plants this year. The main addition to the market has come from Stavrolen at Budyennovsk which increased production by 73% to 41,822 tons in the period January-September 2009. Polypropylene consumption is gradually being

restored to levels seen prior to the outbreak of the financial crisis, despite difficulties faced in the motor industry and for fibres and threads. Imported polypropylene competes against polymer produced mostly by Nizhnekamskneftekhim. Production of the company includes the same qualitative properties as imported polypropylene, but as a rule is cheaper.

Salavatnefteorgsintez-HDPE start-up

Salavatnefteorgsintez experienced an accident in the commissioning operations of its new HDPE plant on 19 October, but according to the company this will not delay start-up. The 120,000 tpa plant is expected to start in November based on Hostalen technology, with installation undertaken by Tecnimont. Around 32 grades of HDPE will be available from the start of 2010. In the period January-September 2009, Russia exported 109,300 tons of HDPE which was 1.6 fold higher than in 2008. China accounted for around a third of exports.



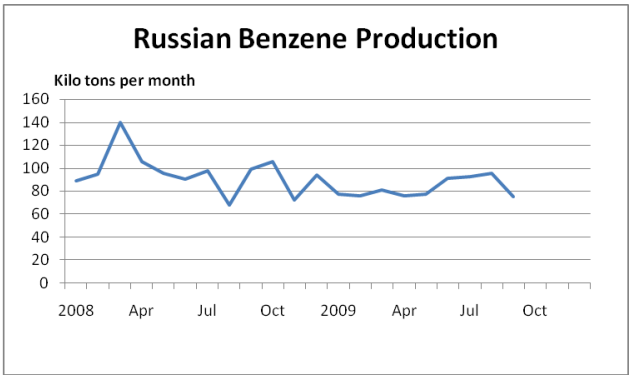
Russian PVC market

PVC production has been 8% down this year against 2008, based on the period January-September, and due to lower imports the market balance has remained tight. In terms of pricing, PVC has risen sharply lately due to rising feedstock prices and the fact that trading company ETK still exercises a very strong position in the market. Producers selling direct to customers are able to maintain slightly lower prices, but largely the market is dominated by one or two trading companies. By imposing strict duties on imports, as has taken place from September, PVC producers have been able to hike prices upward currently making Russian PVC the most expensive in the world in dollar equivalent. Domestic producers of PVC suspension will benefit from the introduction of new duties, issued by the government, although for emulsion grade imports remain necessary to support domestic production.

In September, PVC imports into Russia totalled 30,850 tons which was 24% higher than in August. Imports increased from South Korea, China and the USA. For the first nine months of 2009, Russia imported 93,110 tons of PVC suspension grade which was 72% lower than in 2008. PVC paste imports dropped 22% and totalled 27,300 tons.

The third largest Russian PVC producer Plastkard achieved 222,075 million roubles of net profit in the first three quarters of 2009, 1.2 higher than in 2008. However, a reduction in net profit was recorded in the third quarter against the second quarter due mainly to feedstock costs almost doubling.

Aromatics



Benzene market stabilising

Prices for benzene in Russia have been rising as merchant benzene has tightened. In September, merchant benzene availability dropped 4% from August to 61,600 tons, with most consumers seeing lower shipments. In total for January-September, volumes of benzene in the domestic market have declined 17% against 2008 down to 493,700 tons. Falls in consumption have been seen in all areas of benzene derivatives, with caprolactam seeing a 9% drop in benzene volumes, phenol 14% and styrene 31%. The main suppliers of merchant benzene in Russia include Gazprom-Neft from the Omsk refinery, Zapadno-Siburski Metallurgical Combinat, Stavrolen and Slavneft, which together control 40% of the market.

Despite the weak demand this year, benzene producers have been gradually increasing production levels. In August, Russia produced 95,800 tons of benzene, on 3% more than in July, and 14% more than in August 2008. Output dropped in September, with some maintenance undertaken. Nizhnekamskneftekhim produced only 4,284 tons of benzene in September against 16,380 tons in August, with the plant down for

planned repairs. Overall, the largest fall for the year has been seen at the Ryazan refinery (20%) owned by TNK-BP.

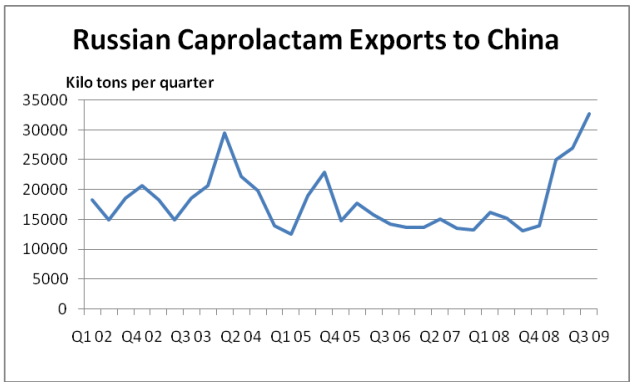
Russian orthoxylene market

Orthoxylene sales on the Russian market totalled 7,400 tons in September, 19% less than in August. Deliveries to phthalic producers dropped 43% to 3,900 tons due to lower export opportunities. In the period January-September 2009, a total of 73,600 tons of orthoxylene was sold to domestic consumers. This was 17% down on last year with phthalic anhydride producers consuming 9% less and organic solvent producers consuming 41% less. Gazprom-Neft at the Omsk refinery accounted for 53% of orthoxylene sales in the Russian market in the first nine months of 2009, followed by Ufaneftekhim with 29% and Kirishinefteorgsintez 18%.

In terms of exports, Russia exported 8,000 tons of orthoxylene in September which was 8% more than in August. For the period January-September, Russian exports have totalled 75,600 tons which was 18% up on last year and due to increased availability. Gazprom-Neft at the Omsk refinery accounted for 59% of exports, with Kirishinefteorgsintez accounting for 31%. The main destination for Russian orthoxylene is Finland, taking 58,200 tons in January-September 2009 and accounting for 77% of total exports.

Russian caprolactam market-exports to China rise

Russian caprolactam exports totalled 177,100 tons in the period January-September 2009 that is 2% more than last year. Whilst domestic demand has been lower this year, particularly for the production of polyamide granules, export shipments have helped maintain reasonable production volumes and have compensated for the low utilisation levels at the start of 2009. Shchekinoazot increased exports by 50% to 35,700 tons, Kuibyshevazot increased by 6% to 72,800 tons whilst Azot at Kemerovo reduced exports by 15% to 68,600 tons. In the first half of 2009, Azot ran at only 50% of capacity. The main export destinations for Russian caprolactam this year have been China, accounting for 48% of total volumes.

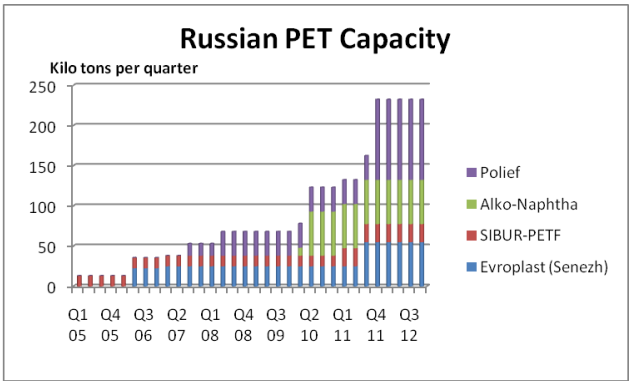


SIBUR-Volzhskiy-new polyester cord plant

SIBUR-Volzhskiy plans to start the production of polyester cords in May 2010, with production reaching tyre plants in Russia by the fourth quarter of next year. The construction process has already completed the energy block for the plant and in the near future the main body of equipment will be installed. The full project should be completed in the early part of 2010 with start-up to be phased in gradually. The capacity of the new cord plant will be 6,000 tpa, and will compete against imported product into Russia. SIBUR-Volzhskiy currently produces polyamide threads for the tyre and fishing industries, polyamide textiles and threads, cords and kapron fabrics for the textile industry, and the polyamide-6 granules.

Russian PTA imports

Imports of PTA from South Korea continue to assist Russian PET producers, although only 504 tons were shipped in September. The Senezh plant, near Moscow, imported 3,000 tons of PTA in August increasing the total for the period January-August 2009 to 9,600 tons. All of these imports were imported from South Korea. The three Russian PET producers have been running at close to full capacity over the past few months, but seasonal fluctuations in demand may reduce the need for PTA imports over the winter.



Kaliningrad PET project

Alko-Naphtha plans to conclude the construction of its PET plant at Kaliningrad in the first quarter of 2010. The capacity of the plant is 220,000 tpa, with start-up scheduled to start in the second quarter of the year. The project has currently reached around 85% of construction, with around €100 million having being invested in the infrastructure. The technology for the project has been provided by Uhde Inventa–Fischer and conforms to food packaging standards. The location is considered favourable for PTA imports, whilst output will sent largely to Russia and EU

markets. As the graphic above illustrates, this will increase Russian PET capacity in 2010 to 123,100 tons per quarter or 492,400 tpa before further expansions take place in 2011-2012.

PET chain, Khanty-Mansiisk

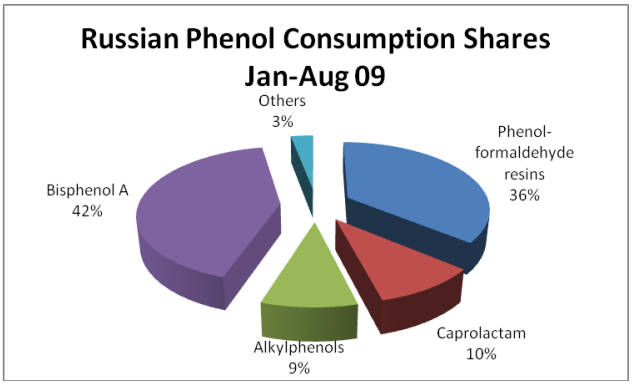
Russian engineering company Metaprocess is preparing specifications for a textile-industrial cluster which is aimed at uniting the Ivanovo area and Khanty-Mansiisk autonomous region. The concept consists of using associated gas in the Khanty-Mansiisk, as part of the government strategy to reduce gas flaring, for the eventual production of PET for textile fibres. Around six billion cubic metres of gas is flared annual in Khanty Mansiisk region, providing a cheaper source of feedstock than in other parts of Russia to produce petrochemicals and derivatives. The production of raw materials will be connected to investments and expansion in the textile-fibre industry in the Ivanovo region. The project concept has the support of a number of government ministries, in addition to involving banks and oil companies.

In the event that the project will be undertaken, it would be the first time a PET plant would be constructed in Russia with textile-fibres representing the main priority. Indorama was previously intending to invest in PET in the Ivanovo region but appeared to withdraw after the global financial crisis erupted in 2008.

Russian government strategy is aimed at creating a gas-chemical cluster involving around fifty small tonnage processing units utilising the associated gas. Aside providing the raw materials for PET, other project ideas include paraxylene, methanol, and urea-formaldehyde resins. Producing resins in Khanty-Mansiisk will help to reduce the cost of building materials which are produced in Yugra and to increase the wood processing industry. Although the infrastructure requires substantial investment in the Khanty-Mansiisk region, priorities of meeting government targets for associated gas processing by 2012 are forcing other projects to be examined.

Russian phenol consumption Jan-Aug 2009

Phenol consumption totalled 119,000 tons in the period January-August 2009, which was 16% lower than in 2008 whilst production fell 20%. Phenol consumption is being boosted by increases in demand for phenol-formaldehyde resins and bisphenol A. The expansion of bisphenol A production is leading to a reduction of available merchant based phenol. In the period January-August 2009, phenol consumption in the application of bisphenol A rose 7% against 2008 and accounted for 42% of total usage, whilst phenol-formaldehyde resins rose 4% to 36%. At the same time, caprolactam dropped 6% and only accounted for 10% in the first eight months of 2009.



Producers have increased production rates over the course of 2009, with four of the five Russian plants now operating at close to full capacity. Despite increases, the merchant market has seen a deficit in availability. Whilst benzene costs have dropped recently phenol prices have as yet remained unaffected.

Plastics

Russian plasticizer cable production, Jan-Sep 2009

Production of PVC cable plasticizers dropped 29% in the period January-September 2009 against the same period last year down to 73,500 tons. The main producers in Russia include Kaustik at Sterlitamak, SIBUR-Neftekhim, Sayanskkhimplast, Polimerplast and Bashplast. Combined these producers account for 95% of Russian production. Despite a fall in Russian production, exports of PVC compounds have increased this year by 25% to 7,100 tons. Sayanskkhimplast accounted for 34% of exports, Kaustik at Sterlitamak (27%), the Vladimir chemical plant (25%) and Plastkab (5%). Imports of PVC compounds into Russia fell by 50% in the first three quarters of 2009 to 6,200 tons, due to a lack of liquidity and a curtailment of many building programmes.

Russian BOPP production, Jan-Sep 2009

For the first nine months of 2009, BOPP production in Russia totalled 76,100 tons which was 3% lower than in the same period in 2008. BOPP production totalled 10,600 tons in August, 4% up on the same month last year, but dropped to 6,100 tons in September due to an outage at Biaksplen. Biaksplen has accounted

for 61% of production this year from its three plants at Kursk, Moscow and Nizhniy Novgorod, whilst Novatek-Polymer accounted for 21% and Isratek S for 19%. Exports of BOPP totalled 16,670 tons in the first nine months of 2009, 32% up on last year. Biaksplen accounts for around 65% of all BOPP exports, with the main destinations including Ukraine, Poland and Kazakhstan. The increase in exports from Russia is due to the growing demand for foreign markets for flexible packaging.

Polycarbonates in Nizhniy Novgorod region

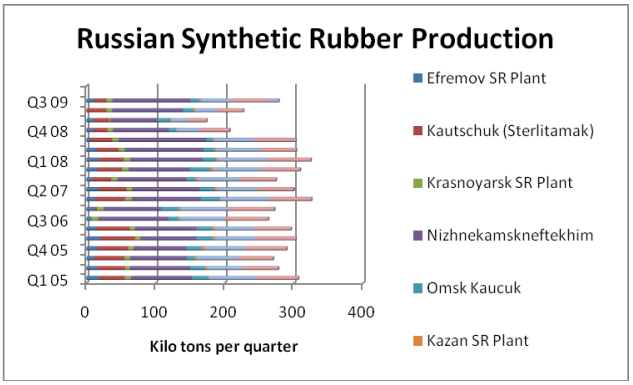
A project has been approved for the construction of a polycarbonate sheet plant at Dzerzhinsk at a cost of 1.3 billion roubles. An area of 90,000 square metres has been allocated for the project, construction of which is expected to start in the spring of 2010. Start-up of the polycarbonate sheet plant is expected in 2011, with a capacity of 20,000 tpa. The company investing in the project is called Intrade.

Since the start-up of the polycarbonate plant at Kazanorgsintez in late 2008, imports of polycarbonate into Russia have seen steady monthly falls. In the period January-August 2009, imports dropped 41% against the same period in 2008 to 18,000 tons. At present, Kazanorgsintez controls around 50% of the Russian market and this share is expected to rise slightly in 2010. A higher import volume of 2,840 tons was noted in September, 6% higher than August, bringing the full year total to 20,840 tons. However, with Kazanorgsintez now starting the production of PC-075, imports are expected to under competition from domestic supply in 2010.

Synthetic rubber

Togliattikaucuk-restructuring

Togliattikaucuk is undertaking a major restructuring of its production activities, involving in the first phase the integration of four of its plants. Structural changes are being undertaken in order to simplify the control system, and to improve efficiency at the company. Part of the restructuring is being introduced in response to financial restrictions this year and to improve profitability. The new model of management is directed on increase of flexibility and to create a uniform chain between the production units in order to avoid duplication.



The most important organisational changes have taken place in the production of copolymers. The group of monomers has been created involving butadiene, MTBE, and SBR. Other divisions include isoprene and butyl rubber, with the full reorganisation of production operations scheduled to be completed by March 2010.

Russian tyre exports increase

Russian car tyre exports rose 17% in the period January-September 2009 over last year, rising to 4.8 million pieces. The producers seeing the largest rises include Nokian Tyres, Nizhnekamskshina and Altai Tyre Plant. Exports have been allowed to increase due to the lower demand in the domestic market. Tyre production dropped 29% in the period January-September 2009, whilst imports fell 28%.

Organic chemicals

Russian DOP

Russian DOP exports have risen this year by 65% in the first three quarters, although remaining a relatively small volume of 2,700 tons. The main producer and exporter of DOP in Russia is Salavatnefteorgsintez. Due to reduced production of PVC compounds this year, Salavatnefteorgsintez has looked more towards export markets and has accounted for 74% of total shipments. China was the main destination for deliveries of DOP from Salavatnefteorgsintez, whilst production at the Ural and Roshalsky factories was shipped to Ukraine, Kazakhstan and Uzbekistan.

Russian MEG exports fall due to higher domestic demand

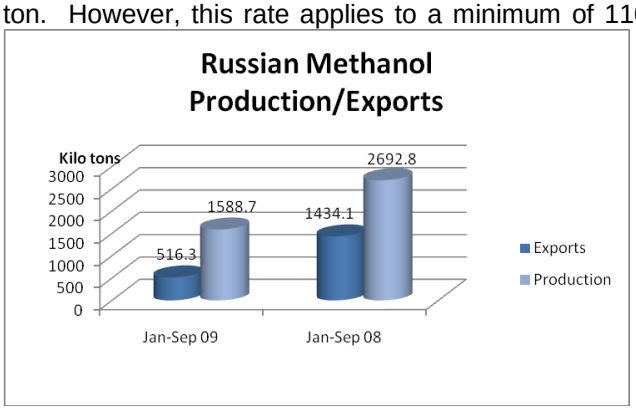
Russian MEG exports dropped 32% in the first eight months of 2009, totalling 71,800 tons, due mostly to lower global demand but also an increase in domestic consumption. SIBUR-Neftekhim is the main exporter of MEG from Russia and recorded a 5% drop to 49,100 tons with the main reductions being seen by Nizhnekamskneftekhim 62% and Petrokam 37%.

The main end-use market for MEG exports from Russia is Belarus, which took 49,900 tons in the first nine months of 2009 (9% down on 2008). The lower exports were due to lower PET production at Mogilevkhimvolokno. Whilst all producers have recorded lower output for 2009, Polief's increased PTA production has resulted in a substantial increase in domestic MEG sales and consumption has risen 1.6 fold over 2008.

Methanol

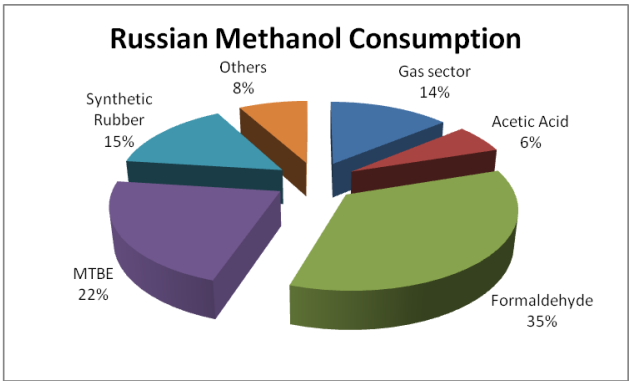
Russian methanol rail tariffs

Metafrax has received reduced a rail tariff for methanol exports until the end of the year, valued at $8 per ton. However, this rate applies to a minimum of 110,000 tons of methanol being exported in the quarter which would allow Russian Railways to make some profit. Various rates have been established for Russian methanol exporters depending on their volumes and their locations. By establishing these exclusive tariffs, it is aimed at promoting an increase in methanol transportation but by the Russian Railways setting such high volumes for individual producers could tighten supply in the Russian market. For instance, Metafrax states it can only export around 90,000 tons in the fourth quarter without impacting on captive or domestic market sales.



The rate for Metafrax was agreed upon for transit via the Ugleuralsky Sverdlovsk rail station to Buslovskiy, which is the border rail station for commodity transfer. Higher rates are applied to transport using the Kaznacheevka Moscow rail station, which sends product to the Port of Riga before being shipped to Rotterdam and the Maklets Moscow rail station before being sent to Buslovskiy.

As a result of these measures, methanol volumes coming out of Russia for the fourth quarter should be higher than at any other time this year. With domestic methanol consumption rising, however, it is not clear how long this trend will continue into 2010 and if methanol producers will conclude similar agreements with the Russian Railways.



Methanol consumption

Russian methanol consumption totalled 1.072 million tons in the first three quarters in 2009, 13% down on the previous year. Consumption remained essentially unchanged, with formaldehyde accounting for the largest end-use application, followed by MTBE and synthetic rubber. Formaldehyde consumption dropped slightly against last year due to the shutdown at Metafrax in August of the methanol and formaldehyde production units. The restart of production at Metafrax will restore the ratio of formaldehyde in the methanol consumption balance.

In the period January-September this year, Russian methanol exports fell 64% to 516,260 tons against the same period last year. Low prices for methanol and high costs per ton for transport have eroded advantages for exporting methanol for the most part of 2009, but with the Russian Railways lowering the tariff rate for transport interest has been revived in exports.

The main factor restricting volumes now is demand in the world market. In terms of exports to Ukraine, volumes are expected to decline now the price of gas for production at Severodonetsk has been lowered by 16% leading to increases in domestic production at Severodonetsk.

Russian UFC production, Jan-Aug 2009

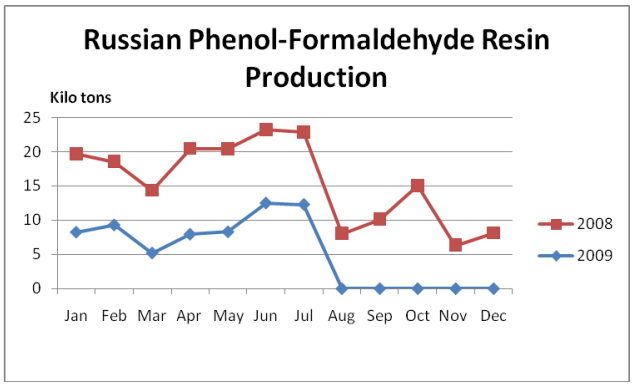
Urea-formaldehyde concentrate increased 17% in August against July, with production rising 23% for the period January-August 2009 against the same period last year and totalled 185,000 tons. Metafrax

accounted for over half of production in Russia, with Togliattiazot and Shchekinoazot the other two producers. The rise in demand for urea-formaldehyde resins is the main stimulant to increases in urea-formaldehyde concentrate production. In the first eight months of 2009 Russia exported 41,000 tons of urea-formaldehyde concentrate, which was 2% up on last year and mainly helped by increased sales to Ukraine and Belarus. The main consumers in Russia include the wood processing companies, whilst Ukraine represents a key export market. Due to the high price of natural gas facing Ukrainian and Belarussian producers of urea-formaldehyde concentrate, it has become unprofitable to produce and cheaper to import from Russia.

The main supplier of urea-formaldehyde concentrate in the Russian domestic market is Metafrax, which supplied 57% of all domestic sales and Togliattiazot supplying 37%. Shchekinoazot supplies very little to the domestic market. Of the Russian producers, Metafrax sells mostly to Belarus and Togliattiazot to Ukraine. Prices for Russian urea-formaldehyde concentrate since March 2009 have ranged $265-275 per ton DAF Russian border. Volumes in Belarus and Ukraine are expected to remain stable for the next few months as production in these countries is still unprofitable. This has helped to compensate for the drop in consumption this year in Russia.

Shchekinoazot-Hexion

Shchekinoazot officially opened the new phenol-formaldehyde resin plant in October in conjunction with its US partner Hexion. Output from the plant will be targeted mainly on the Russian market, aimed at a radius of 500 km from Shchekino. The jv allows Hexion an entry into the Russian marketplace whilst helping to integrate production at Shchekinoazot from methanol through to resins.



Consumption in phenol-formaldehyde resins in Russia started to rise after April this year following a slowdown in the previous quarter. Demand was helped from the spring onwards due to slight improvement in the construction industry and the need for insulation materials. Second quarter consumption rose 7% against the first quarter for insulation materials, and some other products as much as 25%. The first quarter was the main problem this year, with production of phenol-formaldehyde resins dropping 22% and consumption declining by 30% to 61,500 tons, but has since recovered and will be further boosted by the start-up of the new plant at Shchekino. Despite recent rises in phenol costs, producers have been unable to pass increases on to the end-user due to relatively weak demand.

Russian MTBE market

MTBE consumption in Russia totalled 235,600 tons in the period January-August 2009, 7% up on 2008. Exports have risen 10% this year to 243,500 tons. Exports are thought likely to fall, depending on ETBE availability, although internal demand in Russia is expected to rise. In terms of projects, Omsk Kaucuk is examining the possibility of producing MTBE. Omsk Kaucuk is part of the Titan group, which already produces MTBE through its subsidiary Ekooil at Omsk. Titan is expanding its capacity at its Omsk Ekooil site from 200,000 tpa to 330,000 tpa this year, whilst amongst other producers Uralorgsintez plans to expand capacity to 300,000 tpa from 150,000 tpa.

Other news

Transport agreement

DB Schenker BTT GmbH has announced that it has agreed to intensify its cooperation in the chemicals transport segment with TransContainer, the freight subsidiary of the Russian Railways (RZD). The parties signed a letter of intent stating their intention to increase the containerised transport of chemicals to, from and inside Russia. The strategy is ultimately aimed at securing the market leadership in this sector for both parties. Intensive preparations are underway for new transport networks in the principal region of Moscow and the chemical centres between Vladimir, Samara and Kazan. Under the new agreement, DB Schenker will contribute its expertise in tank and silo container equipment and its competence in the transport of dangerous goods and intermodal transport. TransContainer will provide support for the chemical customers in Russia, will supervise operations at the Russian container terminals and contribute its know-how in the

field of container transportation. TransContainer has its own terminals, container carriers and box containers. The company has already been providing services for DB Schenker's current operations since the beginning of this year.

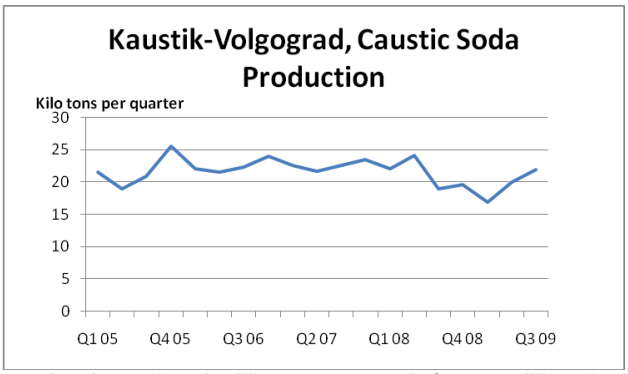
Kama Fields Industrial Park
The Investment Fund of the Russian Federation is granting 500 million roubles for setting up an industrial park at Kama Fields in Tatarstan, which will act as a consumption outlet for polymers produced by Kazanorgsintez and Nizhnekamskneftekhim. It adds to the other industrial and special economic zones established in Tatarstan at Kazan (Khimgrad), Nizhnekamsk (Industrial District) and the Alabuga Special Economic Zone.

As a major producer of polymers, Tatarstan has set itself the task to process up to 30% of future output and the Kama Fields project represents a part of this strategy. The Russian government is furthermore keen to support the proliferation of industrial parks in Russia and is using the Kama Fields site as a pilot project for application in other regions. A total of 1.7 billion roubles will be invested in Kama Fields, of which half will come from Nizhnekamskneftekhim. Kama Fields was founded initially on the left bank of the Kama River in 1986, when the construction of a nuclear power plant was launched in the republic. However, in 1991 the construction was stopped for safety reasons triggering mass unemployment in the area.

Air Liquide-Alabuga
Air Liquide has started the construction of a technical gases plant in the Alabuga special economic zone in Tatarstan. Around €35 million is being invested in the project, in which the capacity is 200 tons per day of liquid oxygen and liquid nitrogen. The plant is expected to be completed in the first half of 2011.

Chlorine News

Kaustik Volgograd
Kaustik at Volgograd saw its turnover drop 11.5% in the period January-September this year to 3.69 billion roubles. The production of liquid caustic soda was 7.56% down to 154,200 tons, although this was offset by a 17.3% increase in solid caustic production to 62,500 tons. In 2008, Kaustik accounted for 17.5% of total chlorine and caustic soda production in Russia. This year, the company has reduced costs on electricity and raw materials to help offset the decline in product pricing.



Khimprom-trichlorosilane
Khimprom at Novocheboksarsk is developing the production of trichlorosilane in preparation for the production of polysilicon. Around $270 million is being invested in the production of polysilicon with a capacity of 2,500 tpa. The project, which will require three years to construct, is supported through the government organisation RUSNANO. Earlier this year, Khimprom at Novocheboksarsk completed the initial stages of the planned reconstruction of the chlorine and caustic soda facilities, allowing the company to lower power inputs and to improve product quality.

A new company is to be established for the polysilicon project at Khimprom's industrial park in Novocheboksarsk in the Chuvash Republic. Its planned capacity is to be one million solar modules per year, the equivalent of 120 MW per year. The core participants in the project are RUSNANO and the Renova Group, the latter of which will own a 51% stake and will be responsible for development of the business. Construction has started this year, with production expected to reach planned capacity during the fourth quarter of 2011.

Omsk polycrystalline project
Titan and the German company Centrotherm Photovoltaics AG intend to build a plant to produce polycrystalline silicon at Omsk. The plant's projected capacity is 10,000 tpa of silicon, including 7,500 tpa of solar-grade silicon and 2,500 tpa of electronic silicon. The polysilicon is to be used in rocket and aircraft construction, solar energy sector and microelectronics. The plant is scheduled to be put into commission by 2012. Most of the capacities in global production of polycrystalline silicon are located in the USA, Japan, Germany and Italy, but there are now several projects in Russia planned to come onstream in the next

couple of years. Production units are scheduled to come onstream in the northern platform of the Tomsk special economic zone by the end of 2009, whilst Nitol Solar is undertaking a larger project in the Irkutsk region at Usolye-Sibirsk. Regarding the Omsk project, silicon will be delivered after pre-processing from Karaganda in Kazakhstan.

Nitol receives second tranche for polysilicon project

Nitol has received the second tranche of credit from the Russian corporation Rusnano valued at 1.5 billion roubles for the production of polycrystalline silicon in the Irkutsk region. A total of 4.5 billion roubles has been invested in the project so far, from a total of 7.5 billion roubles. Polycrystalline silicon is the basic raw material for manufacture of the components applied in solar power and microelectronics.

The new industrial complex creates a raw-material base for the further development of the Russian microelectronics, and also is a key step for the Russian industry solar power. The capacity of the new plant will be 3,800 tpa. Construction is being managed by Fluor with involvement of the Volgograd Institute for Hyprosynthesis.

Berezniki Soda Plant

Berezniki Soda Plant expects to start the production of heavy soda ash before the end of 2009. The project has already been completed, and was originally scheduled to start up in September. Solvay plans to confirm the purchase of Berezniki Soda Plant and Berkhimprom in the early part of 2010 from the current owner.

Ukraine

Ukrainian Chemical Production (unit-kilo tons)

Product	*Jan-Sep 09*	*Jan-Sep 08*
Acetic Acid	54.5	145.7
Adipic Acid	0.0	22.9
Ammonia	2185.7	3893.4
Benzene (-95%)	135.3	196.7
Benzene (+95%)	40.3	132.3
Caprolactam	12.7	41.9
Caustic Soda	32.5	67.5
Ethylene	0.0	85.0
Formaldehyde	14.4	62.6
Methanol	60.2	135.5
Polyethylene	0.0	48.4
Polypropylene	73.3	72.1
Polyvinyl Acetate	3.6	8.0
Soda Ash	495.6	734.1
Titanium Dioxide	73.3	102.3
Toluene	2.3	5.7

Ukrainian chemical production

Falls in demand for mineral fertilisers in the third and fourth quarters this year are expected to impact on Ukrainian chemical producers which have been struggling to balance gas costs against product prices. With gas comprising 65-90% of the fertiliser production costs, the higher prices charged by Russia this year have taken their toll on financial performance in the industry.

Ukrainian fertiliser producers can pay close to $300 per thousand cubic metres, including transport costs and VAT, and are faced by Russian producers which receive much lower gas prices. Some of the worst affected chemical plants in Ukraine this year have included Dneproazot and Crimean Titan. Dneproazot has put on hold of its construction of monomethylaniline plant as a result of the negative financial results.

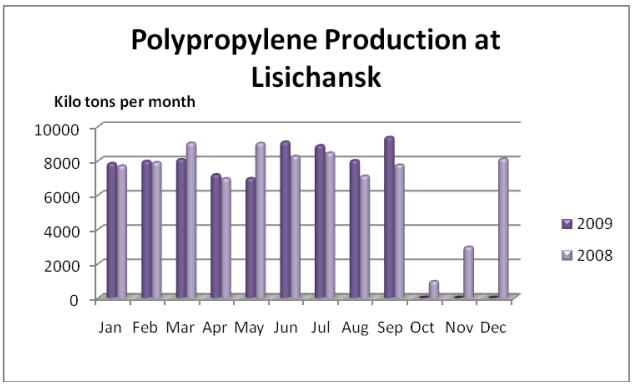
In order to defend domestic plants, there are strong calls for increasing import duties on a wide range of chemicals which are already produced in Ukraine and are suffering from competition. The net cost of the Russian gas for Ukraine in the fourth quarter increased to $205-210 per thousand cubic metres, rising from $198 previously. The rise has been caused by a rise in price of oil throughout this year, and further rises are expected in 2010.

Ukrainian polymer markets

PVC imports into Ukraine have been down substantially this year, due mainly to currency factors, whilst synthetic rubber has been similarly affected. Imports of synthetic rubber totalled 27,870 tons for the first three quarters of 2009, 45% down on last year. Volumes have improved in the third quarter due to increased production at the tyre plants, but still remains way down on recent years. Imports of PVC films into Ukraine dropped 26% in the first three quarters of 2009, down to 9,500 tons. The main sources of OVC film imports are China (23%), Turkey (22%) and Poland (10%).

Whilst LDPE is in good supply in Ukraine, HDPE is much tighter mainly due to the planned outage at Kazanorgsintez. As a result, few shipments were purchased in September which is expected to run through

to November. With Karpatneftekhim idle since June 2008 the domestic market depends on imports from Russia, Uzbekistan, and Central Europe.



For polypropylene, Linik at Lisichansk produced 9,350 tons of in September, 17% more than in August and 21% more than in September 2008. Lower imports this year have created opportunities for Linik to sell more material on the domestic market, coupled with exports. For the first nine months of 2009, Linik produced 73,290 tons of polypropylene which is 2% higher than last year. The company plans a maintenance shutdown in 2010.

Karpatneftekhim-chlorine

Karpatneftekhim has decided to delay start-up of the new chlorine-caustic facilities at Kalush from 2009 to 2010, although a specific date has not been clarified. The main reason for the delayed start-up is connected with the delays in completion of the new PVC plant. Without the new VCM/PVC production facilities, Karpatneftekhim could face a situation where there is a surplus of caustic soda. The new chlorine plant should be capable of producing 200,000 tpa of caustic soda, set against the new PVC plant with a capacity of 300,000 tpa. The design has been established to utilise all of the caustic soda in VCM production and to therefore not require merchant sales of caustic soda.

The only active producer of liquid caustic soda in Ukraine is Dneproazot, which accounted for 57,000 tons of the total 80,000 tons' production in 2008. Imports last year totalled 73,000 tons, mostly of Russian origin from Kaustik and Khimprom at Volgograd. Most of the imports go to the Nikolaev Alumunium Plant owned by Rusal.

Kremenchug-carbon black

The Kremenchug Carbon Black Plant produced 27,400 tons of carbon black in the period January-September 2009, 49.1% lower than in 2008. The reduction of coke production this year has led to insufficient raw materials for carbon black. Demand from the tyre plants has started to revive, with increases in car production, and thus higher volumes of carbon black are expected. The Kremenchug Carbon Black Plant is the largest producer in Ukraine, accounting for 70% of production in 2008.

Kazakhstan-Central Asia

EBRD agrees to finance methanol project in Azerbaijan

The European Bank for Reconstruction and Development (EBRD) has approved a $120 million loan for AZMECO for the construction of a methanol producing plant in Azerbaijan. EBRD has approved up to $120 million financing with 2 separated tranches: a $90 million senior loan up to 9 years; a $30 million Senior Performance-Linked Financing fully re-paid in year 10. The construction of the plant began in 2007 and AZMECO's own investment in this project is $70 million. The International Bank of Azerbaijan, EDC of Canada and the Black Sea Trade and Development Bank also finance this project.

The total cost of the project construction is over $300 million. The methanol plant, which will be located in the Karadag region, is expected to be put into operation in the third quarter of 2010. In the first phase, the production capacity of the methanol plant will be 561,000 tpa rising to 720,000 tpa. Completion of the second phase of construction, which involves the production of nitrogen fertilizer, is scheduled for 2011. In the second phase of the construction, it is scheduled to produce about 400,000 tpa of nitrogen fertiliser.

Azerbaijan currently depends on methanol and formaldehyde imports from Russia, although volumes are small. A large part of methanol production from the new plant will be exported. In terms of cost, Azeri gas is calculated to be cheaper than Russian gas and thus AZMECO should be well placed to compete against Russian methanol exports in the world market.

Azerkhimya-ENI fertiliser agreement

Following on from the EBRD agreement to support the construction of a methanol plant, Azerkimya and ENI have signed a memorandum of understanding on a project of building a new complex to produce fertilisers

in Azerbaijan. Aside fertilisers, Azerkhimya is also examining plans to develop a large-scale petrochemical complex consisting of 19 plants. Some of the capacities mentioned include 700,000 tpa of polyethylene (HDPE and LDPE), 130,000 tpa of polypropylene, 40,000 tpa of benzene, 110,000 tpa of styrene, etc.

Uzbek-Korean petrochemical jv delay

Kogas has stated that it will delay the development of a natural gas project in Uzbekistan by two years to 2014 because of uncertainty about its estimated reserves. An interim study shows the reserves are a fourth of an initial estimate of 96 million tons. A final estimate will be ready in January 2010.

In 2008, the government said the state-run utility will lead a group of South Korean companies in a $1.83 billion venture to develop a gas field and build a chemical plant in Uzbekistan. In August 2009, further agreements to support previous agreements were signed over the construction of the Ustyurt gas chemical complex, involving Samsung Engineering and the local Uzbek company UzLiTineftgaz. Uncertainties over feedstock resources have caused the Korean side to delay investment. The complex was scheduled originally to be completed in 2012, including capacities of 4 billion cubic metres of natural gas processing per annum, 362,000 tpa of polyethylene and 83,000 tpa of polypropylene.

Uzbek-Oman co-operation in petrochemicals

Uzbekneftegaz, Uzkhimprom and the Oman oil company have signed a memorandum of mutual understanding for undertaking a PVC project at the Shurtan Gas Chemical Complex in Uzbekistan. The plant size has been suggested at 50,000 tpa and is aimed at utilising the excess ethylene from the Shurtan cracker which is not used in polyethylene production. The project is part of a range of investment proposals from Oman in Uzbekistan, involving gas development and the production of polyethylene pipes.

Sinopec to construct aromatics unit at Atyrau

The Chinese company Sinopec has been awarded a tender worth over a $1 billion to undertake projects at the Atyrau refinery. Marubeni also participated in the tender, after being involved in the first phase of reconstruction of the Atyrau refinery in the 2003-2006 timeframe. Sinopec was reported to offer a lower price than Marubeni.

The contract between Atyrau NPZ (refinery) and Sinopec Engineering was signed on 29 October for the construction of a turnkey complex for aromatic hydrocarbon production. A total of $1.04 billion is to be invested in the project, which will use ParamaX BTX technologies from Axens. The project provides for production of up to 133,000 tpa of benzene and 496,000 tpa of paraxylene. The paraxylene plant will exceed the total capacity of the three plants in Russia. In addition to aromatics, the quality of gasoline production will be improved and raised to Euro-4 standard. Investments for these projects are scheduled for completion by 2013-2014. The Atyrau NPZ belongs to KazMunaiGaz, which itself is 100% controlled by Kazakhstan's National Wellbeing Fund Samruk-Kazyna.

Relevant Currencies

(Czech crown. Kc. $1= 17.241. €1 = 25.922): (Hungarian Forint. Ft. $1 = 177.04. €1 = 266.185): (Polish zloty. zl. $ 2.7757. €1 =4.1740): (Romanian Lei. $1 = 2.8526. €1= 4.289). (Ukrainian hryvnia. $1 = 8.205. €1 = 12.3365): (Rus rouble. $1 = 28.2963. €1= 43.916)

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