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Issue 219, 3 Mar 2009

#### Features from this issue

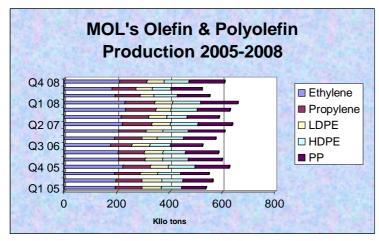
- PKN Orlen announced on 19 February that the long term agreement for ethylbenzene deliveries to Synthos Dwory had been terminated
- higher than in the first three quarters of the year
- Whilst the turnover of Oltchim increased by 11.3% in 2008, to 1946 billion lei, the company ended the year with a loss of 225.64 million lei
- ZA Pulawy has completed the investment project enabling it to increase its AdBlue production. capacity from 30,000 to 100,000 tpa
- SIBUR produced 14.791 million tons of petrochemicals in 2008, which was 7% higher than in 2007
- Kazanorgsintez has installed its new ethylene torch on 16 February as part of the reconstruction of the ethylene complex and development of the E-500 unit
- Nizhnekamskneftekhim produced its first batch of polyethylene on 3 February
- Polyethylene consumption fell 2% in Russia in 2008. with the last few months of the year affected by the global financial crisis
- Stavrolen restarted its polypropylene plant on 15 February after being idle mostly since the accident in April 2008
- The Institute of Heat Electricity is to become the general contractor for construction of the gas pipeline to supply power to the Novy Urengoy Gas Chemical Complex
- Novocherkassk Synthetic Products Plant (NSPP) expects to start construction of a new methanol unit in the fourth quarter of 2009
- Phthalic anhydride production in Russia dropped 10% in 2008 against 2007 due largely to lower consumption which was down 15%
- Tomskneftekhim resumed full production of LDPE in January after reductions towards the end of 2008
- Togliattikaucuk restarted butyl rubber production on 10 February. after halting in October 2008
- ABS plastics' consumption in Russia dropped 5.8% in 2008 over 2007, falling from 43,800 tons to 41,300 tons
- The National Electricity Regulatory Commission of Ukraine set the gas price for the industrial producers at 2020.25 hryvnia per thousand cubic metres in 2009
- LUKoil has decided to continue construction on the new chlorine and caustic plants at Kalush
- Kaustik in Kazakhstan will start work on revamping the chlorine facilities at Pavlodar in May 2009, involving investments of \$108.3 million

# **CENTRAL & SOUTH EAST EUROPE**

#### **Petrochemicals**

#### **MOL Q4 2008**

MOL's petrochemical division recorded an operating profit of Ft 3.8 billion in Q4 2008, which was slightly higher than in the first three quarters of the year. Lower feedstock prices enabled a recovery in petrochemical margins. The improved performance in the final quarter of the year was not enough to avert an operating loss of Ft 7.5 billion for the whole of 2008. Margins were very volatile in 2008, as raw material prices reached both record high and low levels, which were only gradually followed by polymer prices. The naphtha price reached all-time-high level of \$1140 per ton in July, and then nose-dived below \$200 per ton later in the year.



In Q4 2008, the integrated petrochemical margin increased by 11% compared to Q3 due largely to falling raw material prices. However, average integrated petrochemical margins declined by 19% overall in 2008 compared to 2007, as naphtha costs increased by 17% in dollar terms, while the polymer prices fell by 1-7% in euro terms.

In Q4 2008, monomer and polymer production increased by 16% and 18% respectively against Q3. The third quarter was affected by technical problems with monomer and polymer production falling by 9% and 7%, respectively compared to Q3

2007. Despite the improvement in production the fourth quarter, monomer sales fell by 24% against Q4 2007 due to the lower demand from BorsodChem. The 10% fall in polymer sales from MOL in Q4 was attributed to weaker market demand.

Over the full year of 2008, MOL's polymer production declined by 97,000 tons (down 8%) as a result of the general overhauls carried out in the first half of the year, weak market demand, and the technical problems which arose in Q3. Over 2008, polymer sales fell by 91,000 tons (down 8%) due to lower production and shrinking market demand.

### PKN Orlen-Synthos ethylbenzene

PKN Orlen and Synthos have revised their plans regarding cooperation in respect of production and deliveries of ethylbenzene and have withdrawn from building of a unit at Plock. PKN Orlen announced on 19 February that the long-term agreement for construction of the ethylbenzene unit at Plock and subsequent product deliveries from 2011 deliveries to Synthos-Dwory had been terminated. The agreement has been ended officially due to the price of ethylbenzene being too high for Synthos when calculated against the estimated costs of building the production unit. The cost of the investment was estimated at zl 200 million, and the expected rate of return was lower than the current criteria used by PKN Orlen. The ethylbenzene deliveries were expected to start in January 2011.

The ethylbenzene unit has been under construction at Plock as part of a jv formed in January 2007 by PKN Orlen and Dwory, the predecessor of Synthos. PKN Orlen signed three multi-year agreements with Dwory including the sale of between 105-120,000 tpa of ethylbenzene to Dwory for a minimum period of 15 years. This was for an estimated total cost over the period of zl 6 billion, or around €1.563 billion. The ethylbenzene plant, which was to be ready for operation in 2010, was to have a capacity of 120,000 tpa. No statements have been made about the continued construction of the plant, or alternatively where Synthos might source its ethylbenzene supply in future.

PKN Orlen acquired 51% in the jv in 2006 (for zl 6.12 million), with Dwory taking the remaining 49% (for zl 5.88 million). Dwory first announced plans for the creation of a venture with PKN Orlen in 2004. Between \$20-28 million was expected to be invested into the ethylbenzene unit with a capacity of 120,000 tpa.

## PKN Orlen, Anwil-Mazeikiu Nafta

PKN Orlen may delay the sale of its 85% stake in Anwil due to weak market conditions. PKN Orlen has issued short-term bonds to Anwil which have been used for managing the working capital of PKN Orlen Capital Group. The redemption of the bonds will be at their nominal value. The Lithuanian government is looking for additional sources of money due to the financial crisis and is now willing to sell its `remaining 10% stake in Mazeikiu Nafta to PKN Orlen for \$285 million. Orlen is obliged to buy the shares in line with the privatisation agreement. However, the company will gain very little from the transaction, as it already owns a 90% stake in the refinery.

### PKN Orlen Q4 2008

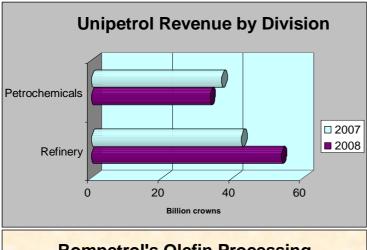
PKN Orlen's petrochemical division recorded an operating loss of zl 97 million in Q4 2008 compared with a profit

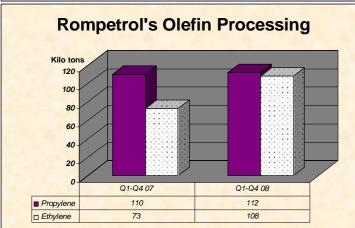
PKN Orlen Group Petrochemical Production (inc Orlen & Unipetrol)			
Product (kilo tons)	Q4 08	Q4 07	
Ethylene	206	203	
Propylene	125	128	
Ethylene Glycol	23	29	
Butadiene	16	16	
Toluene	22	35	
Acetone	7	9	
Phenol	11	13	
Benzene	54	50	
Orthoxylene	1	8	
Paraxylene	5	8	
Polyethylene	100	108	
Polypropylene	76	84	
PVC	77	105	
Caprolactam	7	11	

of zl 55 million in Q4 2007. Lower sales' volumes were the main reason behind the loss. Despite the financial losses, the production of olefin monomers was comparable to Q4 2007. The effect of changes in the prices of petrochemical products on the valuation of inventories at PKN Orlen reduced operating profit by around zl 40 million. The strengthening of foreign currencies against the zloty actually proved favourable and allowed higher margins. This factor alone contributed zl 117 million to the operating profit.

Unipetrol's petrochemical division incurred a loss of zl 70 million in Q4 2009, caused mainly by margins on polyolefins. Additionally, the effect of changes in the prices of petrochemical products affected the value of inventories and this factor reduced operating profit by around zl 90 million. A zl 154 million fall in operating profits was recorded in Q4 2008 for Basell Orlen Polyolefins.

In terms of capital expenditure, PKN Orlen increased investment in Q4 2008 to zl 493 million which was zl 252 million higher than in Q4 2007.





The main projects undertaken in Q4 2008 included the construction of the paraxylene unit at Plock and terephthalic acid unit at Wloclawek, as well as benzene extraction and C5 fractions units at the Unipetrol Group. Unipetrol's revenue from petrochemicals declined in 2008 against 2007, as illustrated in the graphic opposite, due to the sale of Kaucuk to Synthos.

## Rompetrol restarts HDPE production

Rompetrol Petrochemicals restarted HDPE production on 20 February, after restarting LDPE production on 2 February. The restart of production has allowed workers to return to work. At the end of November, Rompetrol Petrochemicals decided to shut down the LDPE and HDPE installations due to the slump in orders. This was a necessary measure for avoiding stock accumulation.

The LDPE and HDPE installations both have a capacity of 60,000 tpa. In order to modernise and restart them and to build a liquefied gas sea terminal, Rompetrol Petrochemicals allocated over \$30 million in 2006 (LDPE) and over \$14.5 million in 2007 (HDPE). In 2007, Rompetrol Petrochemicals reported a 36% increase of

its turnover (approximately \$360 million) and a 26% increase of the sales of petrochemical products (234,000 tons).

## South East European refineries

Petrom's net profits fell by 43% in 2008 to 1.02 billion Lei, after registering a loss of 1.26 billion Lei in the fourth quarter. Part of the losses were atributed to the fall of the accounting value of Arpechim refinery. The company's net gains increased, however, by 36% as compared to 2007, to 16.75 billion lei due to the favourable oil price.

Petrom manages two refineries in Romania, with a total processing capacity of 8 million tpa. Petrobrazi and Arpechim refineries are linked through a pipeline infrastructure. The Arpechim refinery will continue to be a source of loss for the company, unless major modernisation investments are undertaken. However, investments are unlikely to be possible near-term whilst the Petrobrazi modernisation programme has been put back already for at least two years. The modernisation plans for Petrobrazi refinery include an increase of the vacuum and atmospheric distillation capacity from 4.5 million tpa to 6 million tpa, as well as other capacity increases and retooling works for different units, expansion of the coke unit, the construction of Romania's first ever hydrocracker unit along with a new hydrogen plant.

In November 2008, Petrom supported Oltchim's decision to reduce temporarily the quantities of ethylene and propylene purchases, taking into account the market developments and business environment.

Serbian Exports of Petrochemicals to EU (kilo tons)				
Product	2008	2007	2006	
Ethylene	6.06	8.736	3.083	
Propylene	52.687	56.663	42.413	
Benzene	27.421	19.952	2.66	
Toluene	17.479	7.463	0	
Methanol	118.025	106.129	100.265	
Acetic Acid	87.297	74.538	52.13	
LDPE	40.737	36.624	38.687	
HDPE	35.958	36.624	35.958	
Polypropylene	8.42	9.456	4.764	

Gazprom Neft has finalised a deal for the acquisition of a 51% stake in Naftna Industrija Srbije (NIS). The €400 million deal was completed in accordance with a sale and purchase contract between Gazprom Neft and the Serbian government. The agreement on NIS's sale includes the reconstruction and modernisation of the production facilities up to 2012, worth at least €500 million. The modernisation programme also stipulates that the quality of NIS's oil products will be upgraded to Euro 5 standards. Significant investment will be made to increase the environmental safety of NIS's production processes. Gazprom Neft has said that NIS would be the Russian company's stepping-stone for the further expansion of business in the region.

Gazprom Neft expects to invest between 25 and 40% of the planned €547 million via the investment programme this year.

INA-Industrija Nafta and Universal Oil Products signed a contract for the design of an isomerisation unit, as part of the Sisak Refinery modernisation programme. This is aimed at increasing the octane number of the light gasoline fractions and improve the quality of gasoline blends marketed by INA. The design is to be completed within 22 weeks, after international tenders will be invited for the construction of the unit. INA plans to have no maintenance shutdowns at its two refineries this year. INA's biggest shareholder is MOL with a 47.25% stake, while the Croatian government owns 44%. INA, which has both upstream and downstream operations, owns refineries at Sisak and Rijeka.

#### Chemicals

## **Polish Chemical Consortium**

The formation of the Polish Chemical Consortium (PKCh) has been restricted by the financial events in recent months. Having been devised to speed up privatisation of the Polish chemical industry, PKCh was set up based on Ciech, ZA Kedzierzyn and ZA Tarnow. However, in view of the global financial problems the prospects of selling off PKCh in the near future seem unlikely. Privatisation may need to be reassessed once again in the sector. Unfortunately, the government has had several opportunities before to privatise the chemical sector but has failed to take them. In 2006, PCC Cargo was ready to pay zl 366 million for an 80% stake, but the government judged that the price was too low.

PKCh is negotiating with PKN Orlen to acquire Anwil, which is a key to the sale of the group. However, this

seems a difficult deal in the current circumstances with PKN Orlen and PKCh may differ on price substantially. Anwil also includes Spolana which together have a PVC capacity of 435,000 tpa, and PKN Orlen Is seeking around zl 2 billion for its stake. If PKCh fails to land Anwil, the consortium could still be offered to a strategic investor, but may be less attractive.

Polish Chemical Production (unit-kilo tons)			
Product	Jan-09	Jan-08	
Caustic Soda	4.3	6.3	
Soda Ash Light	21.4	29.7	
Soda Ash Heavy	98.4	74.3	
Ethylene	38.4	54.3	
Propylene	28.1	36.6	
Butadiene	3.1	5.7	
Toluene	4.3	12.7	
Phenol	2.7	4.7	
Caprolactam	8.1	14.5	
Polyethylene	27.5	33.5	
Polystyrene	8.1	10.1	
PVC	15.5	24.3	
Polypropylene	24.0	23.4	
Synthetic Rubber	8.1	10.2	
Pesticides	2.1	3.7	

#### **Synthos**

Aside the cancellation of the ethylbenzene contract at Plock, Synthos has concluded two annexes to the contract for the supply of benzene, and to the contract for the supply of ethylene. The two agreements were concluded on 9 July 2007 between Synthos Kralupy and Unipetrol RPA. Based on the appendix to the contract the parties have set new rules over benzene and ethylene supplies to Kralupy.

Over the next few years Synthos plans major investments in its rubber division, in order to keep pace with competitors. Major aims include the expansion of E-SBR and S-SBR at Oswiecim. Synthos has the second largest production capacity in Europe in the area of rubber emulsions (e-SBR).

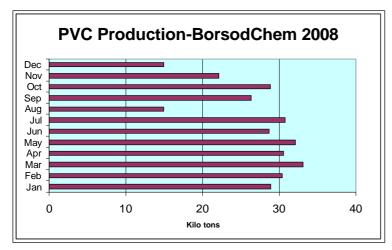
## **Central European intermediates**

Ciech is introducing a number of measures aimed at reducing operating expenses and investment outlays for 2009. The financial goals for this year involve a reduction of operating expenses by zl 71 million and outlays on investments by zl 121

million. The reduction of investment expenditures was achieved mainly through their optimization and time extension for the TDI project. . Ciech incurred large losses on contracts last year after the zloty lost about a third of its value against the euro after August 2008.

Czech engineering company Chemoprojekt has won a tender for a 98.85% state share in Technoexport, having offered Kc 516.72 million for the stake. Technoexport is a leading Czech exporter and importer of industrial plants and equipment. Chemoprojekt designs and undertakes projects in the areas of nitric acid, urea, oil, gas and environmental protection, and also projects for the food and rubber industries.

Spolana's production units have been running at 40-70% of capacity, and the company has been forced into



laying off workers. BorsodChem reached an agreement in late February with the Hungarian government that allows it to suspend a headcount reduction that previously seemed inescapable. Working out the details of the agreement is expected to take several more months, but at least it seems s that large layoffs have become avoidable in the short term. As part of the company's cost reduction and efficiency boosting programme, BorsodChem will offer employees close to the retirement age to resort to early retirement. Earlier in February BorsodChem had indicated plans to lay off 550 employees due to lower orders and smaller-than-expected revenues. The global

financial crisis has affected BorsodChem's orders and as a result its revenues came in smaller than expected.

#### **ZA Pulawy**

ZA Pulawy has completed the investment project enabling it to increase its AdBlue production capacity from 30,000 to 100,000 tpa. Consequently, the company has reinforced its leading position among Central European AdBlue producers. AdBlue is a urea solution applied in new generation diesel engines and is used to comply with the EU restrictions on exhaust emissions.

The main product to be affected in the October-December period was caprolactam, with ZA Pulawy being the main producer in Poland. Exports to China are traditionally important for Polish production, but lower Chinese demand meant that ZA Pulawy was forced to reduce caprolactam-operating rates.

ZA Pulawy expects lower profits in 2009 and partly as a result is focusing on improving cost efficiencies, including a review of the production capacities together with the consumption of feedstock. In 2008, the company entered into a strategic agreement with Lubelski Wegiel Bogdanka regarding the introduction of projects involving the use of hard coal. In December, ZA Pulawy executed an agreement with Vattenfall Poland concerning construction of a conventional power plant with a capacity in excess of 1,400 MW. In January 2009, the Company entered into an agreement with Polskie Górnictwo Naftowe i Gazownictwo S.A. regarding investment projects involving the use of natural gas. Work on the Coal Gasification project is in progress, with the feasibility study (prepared by Bechtel.

## Nitrofert-ammonia stoppage

Estonian fertiliser producer Nitrofert at Khotla-Jarve stopped production of ammonia and urea in February due mainly to higher costs for electricity and railway transport. The payment for the electricity comprises 20% of the cost price for Nitrofert, and with electricity prices rising the company has been forced to halt production. To lower costs on electricity, Nitrofert wants to construct its own power station based on Russian gas. At present, however, the company is in dispute with Gazprom over gas supply. Nitrofert uses Russian gas supplied through Eesti Gaas and consumes 210 million cubic metre of natural gas per annum. Owing to the economic downturn, Nitrofert has approached the government of Estonia for support in order to ensure jobs. Nitrofert is the main chemical producer in Estonia. The company is part of OstChem Holding and includes capacities of 100,000 tpa of ammonia and 180,000 tpa of urea.

## RUSSIA

#### Market outlook

## Russian chemical production Jan/Feb 2009

Production numbers from the start of the year have continued in the same downward trend since the latter part of

Russian Chemical Production (unit-kilo tons)			
Product	Jan-09	Jan-08	
Ethylene	182.9	217.0	
Benzene	77.5	88.8	
Styrene	38.3	47.2	
Phenol	14.6	20.5	
Polyethylene	119.8	118.4	
Polypropylene	42.5	58.1	
PVC	44.0	54.4	
Polystyrene	13.4	21.6	
Butanols	18.2	23.6	
Methanol	179.6	342.0	
S Rubber	43.0	105.3	
Caustic Soda	88.2	114.8	
Soda Ash	159.5	260.9	
Ammonia	1000.0	1210.1	

2008, although there are indications in February of some derivative plants restarting production. Fertilisers were the biggest sector to suffer in January, with production dropping 41.7% against January 2008 to 946,000 tons. Ammonia dropped 17.1% to 1 million tons, soda ash fell to 38.9% to 159,500 tons, caustic soda fell 23.1% to 88,200 tons, and plastics & resins fell 15.9% to 324,000 tons.

In the petrochemical sector, synthetic rubber production fell sharply by 59.1% against January 2008 to 43,000 tons, whilst tyre production fell 83.1% to 510,000 pieces. With demand being down significantly both in export and domestic markets, some chemical producers are facing cost pressures which could force further cut-backs if markets stay as they are for a lot longer. For the short term, numerous chemical producers are seeking financial support from the government to meet running costs in the main, whilst SIBUR is seeking support for major investment projects. Some companies such as Metafrax are seeking a revision of transport costs that would allow it to export methanol profitably. In an atmosphere of growing dissert the government will do its utmost to ensure that companies keep running. As the spring

approaches producers will be hoping for seasonal uplifts in certain product areas, but on a more limited basis than in the past few years.

#### Feedstocks & Petrochemicals

### SIBUR's gas feedstock projects

Further deliveries of key equipment have been delivered to the Yuzhno-Balyk Gas Processing Plant (GPP), including low-temperature condensation units and propane refrigeration units. It is part of SIBUR's programme of

undertaking investment projects which reduce APG flaring and enhance processing of hydrocarbon feedstock into end products. Upgrading of Yuzhno-Balyksky GPP started in 2007. The first phase included the reconstruction of the plant with an increase of the APG intake capacity from 0.9 to 1.5 billion cubic metres per annum. Construction of installation of the new equipment is expected in the third guarter of 2009.

Construction of the second stage of Yuzhno-Balyksky GPP involves increase of APG processing capacity by 1.5 billion cubic metres per annum, thus bringing the total annual capacity of the gas processing plant to 3 billion cubic metres of APG. The capacity increase is intended for intake of additional amounts of APG, mainly from Priobsky oil field which is being developed by Rosneft.

The government body Central State Expertise Department has approved the project documentation for the Yuzhno-Priobsky gas processing plant and pipeline to be constructed for the production and transportation of residue gas to the gas transportation system. In August 2007, Gazprom Neft and SIBUR Holding set up a joint venture Yuzhno-Priobsky GPP for the processing of associated petroleum gas (APG) from Yuzhno-Priobskoye field. The jv was founded by the respective subsidiaries Gazprom neft–Khantos and SIBURrTyumenGas.

The parties will soon make a final decision on the capacity of the APG plant. Until Yuzhno-Priobsky gas processing plant comes onstream the pipeline with the length of 6.9 km will be used in the reversing mode to supply gas from the gas transportation system to Yuzhno-Priobskaya GTPP that is being constructed Gazprom Neft-Khantos. The pipeline construction is due for completion in the third quarter of 2009.

SIBUR-Holding, Production 2008 (kilo tons)			
Product	2008	2007	
Natural gas liquids	3,222	2,796	
Stable natural gasoline	649	677	
Liquefied petroleum gases	3.099	2.868	
Monomers, hydrocarbon fractions	2.164	2.057	
Synthetic Rubber	480	553	
Polymers	537	501	
Organic chemicals	1.043	1.135	
Mineral fertilisers	1.966	1.595	
Fuels and lubricants	837	817	
Others	794	885	
Total:	14.791	13.883	
Dry stripped gas (million cu. m)	13.306	11.416	

#### SIBUR 2008-2009

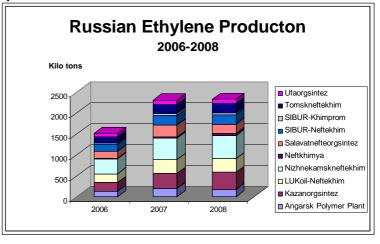
SIBUR produced 14.791 million tons of petrochemicals in 2008, 7% higher than in 2007. Output of dry gas totalled 13.306 million cubic metres against 11.416 million cubic metres in 2007. In view of the deterioration of the pricing environment and a drop in demand in the second half of 2008, SIBUR anticipates a fall in utilisation levels in the current year. The group, however, will continue its large-scale cost reduction programme in order to improve the performance and maintain its market share.

## Russian ethylene market 2008

Ethylene production totalled 2.337 million tons in 2008 against 2.304 million tons in 2007. The increase in 2008 was lower than expected due to the downturn of demand

in the second half of the year. The largest fall in production against 2007 was seen at Salavatnefteorgsintez (26%). Kazanorgsintez increased production by 17% but that was still insufficient to meet full demand and

the company was forced to purchase an additional 165,000 tons Nizhnekamskneftekhim. This year Kazanorgsintez intends to increase ethylene capacity to 605,000 tpa, but due to feedstock questions it is not clear if the company will manage to maximise utilisation. Kazanorgsintez launched its new ethylene torch on 16 February as part of the reconstruction of the ethylene complex and development of the E-500 unit. recognises Kazanorgsintez that Nizhnekamskneftekhim will have very little surplus ethylene this year due to the start-up of the new HDPE plant at Nizhnekamsk.



Nizhnekamskneftekhim increased ethylene precaution by 7% in 2008 and expects to increase to 600,000 tons this year. Whilst Salavatnefteorgsintez produced much less ethylene in 2008 over 2007, it is still planning to complete an expansion to 380,000 tpa due to the need to supply the new HDPE plant which is scheduled for start-up in the second half of this year.

#### SIBUR subsidiaries

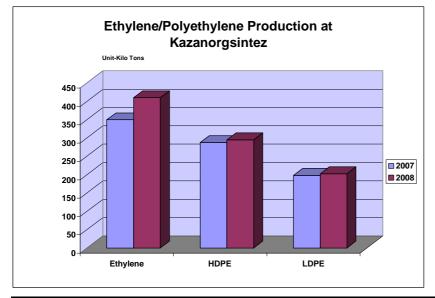
Tobolsk-Neftekhim increased gas processing 8.2% in 2008 to 2.869 million tons. Isobutylene increased 49% to 52,000 tons, MTBE 7% to 107,000 tons, and isobutane-isobutylene fractions 1.2% to 84,000 tons. Butadiene fell from 192,000 tons in 2007 to 183,000 tons in 2008, largely due to falls in demand from the tyre industry. Tobolsk-Neftekhim halted production at its first butadiene line in early February due to the demand situation. However, the complex expects to see new orders in March and hopes the stoppage will be brief. The other division at Tobolsk affected by the economic downturn is isobutylene-MTBE

SIBUR-Khimprom's export sales increased 21+% in January 2009 over January 2008. Export commodities included styrene, 2-ethylhexanol, normal and iso-butanol and MTBE. Lower domestic demand has encouraged the company to increase export activity. SIBUR-Neftekhim has completed the second stage of the corporate project on perfection of a control system and increase of industrial efficiency.

SIBUR has insured its chemical plants through Sogaz including Azot at Kemerovo, Yuzhno-Balyksk GPP, Voronezhsintezkaucuk and Novokuibyshevsk Petrochemical Company. The cumulative limit of a risk comprises 120.9 billion roubles.

## Kazanorgsintez-cost pressures

Kazanorgsintez continues to face market challenges in relation to costs and product prices, both in the domestic or export markets. The most important raw materials for the company include propane-butane fractions and benzene, with the former leading to close co-operation agreements with Gazprom and SIBUR.



Kazanorgsintez could face difficulties in the change of customs tariffs, both for the import of equipment and the export products. In February, Fitch Ratings downgraded Kazanorgsintez to 'CC' from 'CCC'. Aside from bank refinancing and maturity extensions, recourses currently explored by the company include state banks funding and financial support from shareholders. Fitch stresses however that amid uncertain economic conditions in Russia, such support could prove to be difficult to obtain and could only partially address the company's refinancing issues.

## **Bulk polymers**

### SIBUR seeks extra government support

SIBUR-Holding has approached the government for additional support for its main projects at Tobolsk and Kstovo. Additional funds are sought through the Foreign Trade and Investment Bank (VEB). The projects are estimated to require around \$2.5 billion in total, and SIBUR has asked for \$100 million for refinancing of credit debts. SIBUR states that its not able at present to finance large-scale projects and requires political and financial support.

In January 2008, SIBUR had requested project funds from VEB to the value of 45 billion roubles (or \$1.44 billion at the time). These funds were intended to construct a gas processing plant in Yamal-Nenets in West Siberia, worth around \$1 billion, and the Tobolsk polypropylene plant worth around 36 billion roubles. At the same time as VEB was providing funds, SIBUR was required to find private sources on the open market. However, this possibility has been thwarted by the ensuing financial crisis. As a result, SIBUR has returned to VEB with a request for support for the Tobolsk polypropylene and Kstovo PVC projects. The Kstovo RusVinyl project has replaced the gas processing plant in SIBUR's priorities. The company estimates current requirements for financing in the range of \$2.5 billion.

If the finance is approved, VEB will allocate funds in trenches over a stipulated period. SIBUR claims that it is important that these projects are completed as part of the strategy of development of the chemical and petrochemical industry of Russia up to 2015. For the Tobolsk project, SIBUR is in the stage of designing and organising contracts for the purchase of large-sized equipment for which it has already done deals worth around \$200 million. Aside providing jobs, SIBUR's strategy at Tobolsk also conforms to the government's goals of utilising associated gas flares for petrochemical production and reducing flaring to 5% by 2012.

## Nizhnekamskneftekhim-HDPE operations

Nizhnekamskneftekhim produced its first batch of polyethylene on 3 February. At present the process is being adjusted for production of HDPE grade PE4050Q . The process of polyethylene production uses the Spherilene gas-phase technology supplied by LyondellBasell and possesses a capacity o 230,000 tpa. Techimont was the project contractor.

The Nizhnekamsk plant is intended for manufacture of granular polyethylene of black and natural colours, and certain grades have not been produced before in the Russian Federation. Based on cost price and quality Nizhnekamsk polyethylene should be capable of could successfully compete with foreign equivalent products in the Russian market. The project makes provision for production of the following types of plastics: LLDPE, MDPE, and HDPE. The range of linear low-density polyethylene (LLDPE) and medium-density polyethylene (MDPE) includes the grades suitable for compositions, films, items of injection and rotational moulding. The range of high-density polyethylene (HDPE) includes the grades intended for blow, rotational and injection moulding, for production of pipes, films, compositions, threads and fibres. After commissioning of the new plant Nizhnekamskneftekhim successfully accomplished the programme of transition from production of monomers to polymers, including polyethylene, polypropylene and polystyrene. The company's total capacity of plastics production is 600,000 tpa.

A part of polyethylene produced at the new Nizhnekamsk plant will be consumed regionally amongst local industries. Industrial zones in Tatarstan started to be developed in 2004 and in 2005 the Nizhnekamsk Industrial District was created. This district is already providing an outlet for polymers produced by Nizhnekamskneftekhim with more than 50 small and medium sized businesses have located there. One converter Polibox, which produces cellular polymeric sheet; polymeric pallets and container systems for automobile and machine engineering industries, processed 5,000 tons of polymers from Nizhnekamskneftekhim in 2007 which is expected to rise to 18,000 tons in 2009. Other converters include Kamplast, which has organised the production of car bumpers, Hiton-Plast 2, which produces a wide range of automotive polymeric accessories, and the Nizhnekamsk factory of a low-voltage wire which has mastered manufacture of low-voltage wires for motor industry. The Tatar government has set a target of processing no less than 30% of the polymers produced in the Republic, either at Nizhnekamskneftekhim or Kazanorgsintez.

## Tomskneftekhim-production revival 2009

Tomskneftekhim resumed full production of LDPE in January after reductions towards the end of 2008. The plant is running at present at its full capacity level of 200.000 tpa. after being reduced to 40% in November last year. Overall for 2008, Tomskneftekhim increased production by 7.8% to 224.508 tons and polypropylene by 3% to 114.226 tons.

#### **Novy Urengoy Gas Chemical Complex**

The Institute of Heat Electricity is to become the general contractor for construction of the gas pipeline to supply power to the Novy Urengoy Gas Chemical Complex. The power station will supply energy to the complex, involving a capacity of 400,000 tpa of LDPE. The power station will be constructed in the conditions of severe northern climate where the temperature in winter months can reach –56C. The power station is scheduled to be completed in December 2010, with the ethylene-polyethylene units to become operational by 2012 or 2013.

The general contractor Stroytransgaz has accordingly begun constructing the complex for obtaining ethylene and polyethylene. The project includes recovering ethylene from feed gas; obtaining ethylene through pyrolysis of ethane with subsequent separation of gas by fractions and removal of impurities from the ethylene, using equipment and technology from Linde; deriving polyethylene from ethylene through a high-pressure pipe reactor outfitted with three processing chains, using Salzgitter equipment and technology

from Basell. Along with its primary production, the gas-chemical complex will produce wide fraction hydrocarbons.

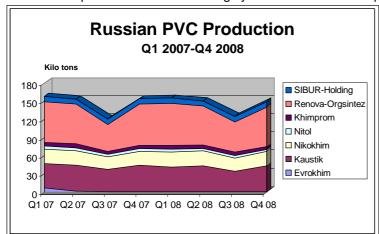
Stroytransgaz states it will perform building, assembly, and pre-commissioning work for the ethylene and polyethylene processing units, take part in inspection and reconstruction of previously installed equipment. Stroytransgaz-M is working on the first phase of offsite facilities for the Novy Urengoy complex.

#### Russian PE market 2008

Polyethylene consumption fell 2% in Russia in 2008. with the last few months of the year affected by the global financial crisis. December saw consumption drop by 18% to 91.940 tons. with producers compensating with increased export activity. Exports increased in December by 168% compared to November. HDPE consumption went down by 6% in 2008. Imports of LDPE totalled 38,340 tons in 2008, with major suppliers including Borealis. Ineos Polyolefins and Exxon Mobil. HDPE exports increased significantly in December; amounting to 19,380 tons. Around 70% of overall exports were shipped to China (13,560 tons). Domestic HDPE prices have remained stable despite an apparent lack of injection moulding feedstock. Whilst exports have been higher so have imports, thus balancing out the market. LLDPE consumption in Russia rose 17% in 2008 over 2007, totalling 101,330 tons. Most of the consumption was met through imports, with domestic production totalling only 19,550 tons.

### **Russian PVC market**

Whilst PVC production remained largely stable in the fourth quarter of 2008, the weakness in the Russian



domestic market has forced producers to export more volume. The devaluation of the rouble has also helped make exports more attractive. At the same time, the fall in domestic demand for PVC profiles has been substantial in the past few months, in the range of 10-30%.

Consumers have been unable to pay leaving profile manufacturers short of cash which has ultimately led to lower orders for PVC. Plastkard at Volgograd increased PVC production by 3% in 2008 over 2007. with turnover showing also a 3% increase. The company has extended its product

range. It is well placed logistically for selling PVC by road, rail or river, which gives Plastkard advantages over its competitors for merchant sales.



#### **Kaustik Sterlitamak**

Kaustik saw a fall in turnover in 2008 by 1.7% over 2007 to 10.449 billion roubles. The fall in the fourth quarter was the significant period in the year, whilst exports accounted for 13% of turnover for the whole year. Kaustik has devised a series of measures designed to minimise the effects of the economic downturn, consisting mostly of cost-cutting measures.

The company is still focused on its expansion plans, with the increase in PVC capacity to 200,000 tpa to be completed in the third quarter of 2009. By 2013, Kaustik

hopes to have increased PVC capacity to 400,000 tpa but this will depend on finance being available and the also the additional availability of ethylene which it buys on the merchant market.

## Stavrolen-PP restart

Stavrolen restarted its polypropylene plant on 15 February after being idle mostly since the accident in April 2008. The equipment at the 120.000 tpa plant has been repaired and partially replaced by new equipment. The intention in restarting the plant is to focus output on exports with the domestic market stagnant and perhaps even falling. For the whole of 2008, Stavrolen produced 18.200 tons of polypropylene from a total production in Russia of 509.000 tons.

## Synthetic rubber

#### Sintez-Kauchuk 2008

Sintez-Kauchuk at Sterlitamak produced 154,000 tons of synthetic rubber in 2008, 3.2% lower than in 2007. Of the total production in 2008, Sintez-Kauchuk produced 98,000 tons of isoprene rubber. In financial terms, sales increased 12.9% in 2008. In 2009, Sintez-Kauchuk plans a number of measures aimed at increasing competitiveness and also the introduction of a new type of isoprene rubber. In the third quarter of 2009, Sintez-Kauchuk expects to introduce the quality management system ISO 9001.

#### Nizhnekamskneftekhim-rubber production increase 2008

Nizhnekamskneftekhim increased synthetic rubber production by 12.2% in 2008 over 2007; whilst on average synthetic production was down in Russia by 3.3%. The increased production at Nizhnekamskneftekhim in 2008 came from isoprene rubber (+6.3%), butyl rubber (+10.9%), and polybutadiene (+34.5%).

Along with implementation of the polymer programme at Nizhnekamsk, the company is focused on developing new rubber grades. In 1999, Nizhnekamskneftekhim produced only isoprene and butyl rubber, but this has now been expanded to include butyl, chlorobutyl and brombutyl, isoprene, polybutadiene on neodymium and lithium catalysts, and ethylene-propylene. At present the total capacity of rubber production at Nizhnekamskneftekhim is over 550,000 tpa.

## **Togliattikaucuk**

Togliattikaucuk restarted butyl rubber production on 10 February. after stopping the plant in October 2008. In the period November-January, the company sold butyl rubber from warehouse stocks. Production dropped by 23% in 2008 against 2007 Although production was rests rated in February. Togliattikaucuk only planned to operate the plant at low rates. Around 99% of butyl rubber production is exported mainly to Asia and China.

Togliattikaucuk is introducing a number of measures on cost-reduction in order to overcome the drop in demand for synthetic rubber. The company's management aims to reduce the number of personnel. whilst cutting costs in non-essential areas. The sharp reduction in synthetic rubber prices in the latter part of the year has affected the company's outlook for 2009. At the end of last year, SIBUR approved a project financial support programme for Togliattikaucuk worth 472 million roubles for 2009. which is about 30% less than expected. Modernisation of the complex remains a key priority for SIBUR despite the negative financial conditions.

One of the main projects is the conversion of the isoprene unit to a one stage process from its current two-stage process. thus following Nizhnekamskneftekhim which completed the change several years ago. The conversion process at Togliattikaucuk started in 2008 and will increase the capacity of isoprene and reduce the costs in the production of isoprene rubber. Also the support programme entails the replacement of equipment for the butyl rubber plant, with 31.5 billion roubles has been allocated for this task. As part of the financial support programme for projects, Togliattikaucuk will undertake around 700 tasks in 2009. including ecological, technical safety and product quality.

## Tyre news

Matador-Omskshina started production of tyres on 2 February. with full activity expected as the market improves. Matador-Omskshina is a jv between SIBUR-Russian Tyres and the Slovak Continental Matador Rubber. The plant at Omsk produces tyres for automobiles and trucks.

Nizhnekamskshina restarted the production of lorry tyres on 16 February. Production was restarted after the Kamaz lorry plant restarted operations. Car tyre production at Nizhnekamskshina was restored on 12 February, and not 2 February as previously stated. The only part of Nizhnekamskshina not working is the section for agricultural tyres. Demand is expected to increase in the second quarter, and the company is only capable of

operating on current orders due to a lack of storage capacity. In 2008, Nizhnekamskshina produced 11.876 million tyres which was 4.3% lower than 2007.

## Methanol

## Itera seeks finance to support UralMetanolGroup project

Itera has already been forced by the financial crisis to move the completion date for the gas-chemical and methanol complex from 2011 to 2012, but the project may need to be pushed back further if Itera cannot secure the necessary finance. The original business plan envisaged 50% of the capacity of the complex being finished by 2010 and the full project by 2011. A capacity of 450,000 tpa was originally decided for the methanol plant, but Itera later adjusted the capacity to 600,000 tpa. The project required an estimated €300 million to complete, of which around a third was to come from funds from Itera and Uralkhimplast and the remainder from loans.

Funds are to be provided through project financing and it is the uncertainty over the conditions and timing of such arrangements that will determine the project schedule. One of the main questions in the project financing estimations is where will the methanol be sold. Although some will be used captively by Uralkhimplast, Itera's jv partner, there will be a large surplus for sale on the domestic markets particularly if the capacity is 600,000 tpa rather than 450,000 tpa. Uralkhimplast could use up to 125,000 tpa in the production of formaldehyde.

The Sverdlovsk region, where the plant is being constructed, is far from the main export routes whilst it is hard to find methanol consumers in the domestic market. The fall in methanol prices over recent months is a clear example of the volatility of the market which could expose the UralMetanolGroup plant. Itera would like to find co-investors for the project, although it is not quite clear if it would be ready to offer equity.

Produc	tion at Azot	
Nevinnomy	yssk, (kilo to	ons)
Product	Q4 08	Q4 07
Ammonia	229	291
Urea	175.244	167.17
Methanol	24.4	33.6
Acetic Acid	24.4	44.9
Acetaldehyde	8.1	11.37
Butanol	3.7	5.38
VAM	3.46	4.56
Butyl Acetate	5.4	6.2
PV Alcohol	0.21	0.19

I	Producti	on	was	rec
(	demand	rel	ated	re
(	dropped	bν	71.2	270

Nevinnomyssk Azot

duced at Nevinnomyssk in the fourth quarter for not only easons but also forced outrages. .Ammonia production 0 tons in the fourth quarter of 2008 against 2007, whilst methanol dropped by 9,200 tons due to a forced stoppage in mid-November and then a stoppage in December due to demand problems for acetic acid. In terms of finance, Azot achieved a turnover of 4.667 billion roubles in the fourth guarter of in 2008, of which 3.714 billion roubles came from domestic sales. Turnover declined 13.5% against the fourth guarter of 2007. From 5 December until the start of January the VAM, butyl acetate and butanol plants were halted due to a lack of orders.

## Akron's Production of Main Products 2008 (kilo tons)

Floudetts 2000	o (KIIO L	Ulis)
Product	2008	2007
Ammonia	1,494	1,690
Nitrogen Fertilisers	1,710	1,665
Urea	449	450
Complex Fertilisers	1,996	2,673
Methanol	187	231
Formaldehyde	193	184
Urea-formaldehyde resins	221	203

## Akron 2008

Akron reduced ammonia production by 12% in 2008 to 1.494 million tons. Production of nitrogen fertilisers rose 3% to 1.71 million tons. whilst complex fertilisers dropped by around 25% to 1.996 million tons. Lower global demand for fertilisers has affected Akron. with methanol also suffering from lower orders and prices. IN the fourth quarter of 2008. Akron reduced production operations to anywhere between 15-50% of capacity at its units. However, the company is increasing utilisation rates in Q1 2009 to meet the oncoming demand for the spring growing season. Akron hopes for a recovery in fertiliser markets in the second half of the year.

## Metafrax-challenging rail costs##

Since the end of December. 2008. Metafrax has run at 50% of overall capacity and only produced 56,000 tons of methanol in January. Pentaerythitol production has stopped altogether. whilst methanol and formaldehyde units are running at 50% and 60% respectively.

company has reduced output due to the adverse competition in the domestic market since the fourth quarter of 2008, including high costs for transportation. and also owing to sharp falling orders.

The administration of the Perm region plans to challenge the rate of transport costs which are facing Metafrax. Previously. tariffs comprised the cost price of production which was around 20% but has since risen to 70%. Before the crisis started the price of methanol was around \$425 per ton but has now fallen to \$125, whilst the cost of transport has remained the same at \$75. The regional government has seen almost daily requests from Metafrax to help with crisis and to reduce costs for electricity and rail transportation.



Whilst Metafrax is seeking lower rail costs, Russian Railways states that a revision is not necessary and argues that the transport component for Metafrax does not exceed 18%. It also claims that Metafrax is not as badly placed as other methanol producers in Russia.

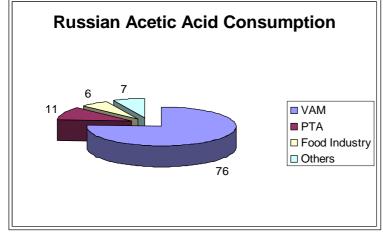
Pentaerythitol is produced in Russia solely by Metafrax. Consumption totalled 17.800 tons in the first three quarters of 2008, 3% less than in 2007. The reduction was due to declines in paint production forcing Metafrax to export more pentaerythitol. Volumes of deliveries of production of a

domestic production on home market have increased for this period by 19% to 14.400 tons.

In 2009, Metafrax plans investments of 925 million roubles in projects which the company feels are vital despite the current economic downturn. In 2008, Metafrax spent 30 million roubles on expanding its own railway infrastructure, and 290 million roubles into a new polyamide plant. Reconstruction of the utropin plant took place at cost about 70 million roubles.

#### **Novocherkassk Synthetic Products Plant-Methanol**

Novocherkassk Synthetic Products Plant (NSPP) expects to start construction of a new methanol unit in the fourth quarter of 2009. The project has been delayed by financial constraints, but is now expected to proceed by the end of this year. The capacity of the methanol plant is set to be 450,000 tpa, together with an acetic acid plant of 150,000 tpa. The project cost has been evaluated at 12 billion roubles which will be financed through loans. The technical conditions for the plant have been drawn up by the institute Khimtechnologiya from Severodonetsk in east Ukraine. Khimtechnologiya has worked on design for nearly all the methanol plants running in the CIS. Methanol production at Novocherkassk dropped from 115,400 tons in 2007 to 72,490 tons in 2008.



## **Organic chemicals**

## Acetic acid market

Acetic acid production dropped in the final quarter of 2008 at Azot at Nevinnomyssk due largely to lower demand, and was 13% lower for the whole year and against 2007. Acetic acid consumption is expected to rise in the second half of this year. The largest part of consumption in Russia of acetic acid goes into VAM and acetate solvents, which together account for around 76% of the total market. Other outlet areas include PTA and the food industry. Whilst demand weakened in the

latter part of last year, the expansion of the paints industry over the past few years has been the main factor has been the main stimulus to acetic acid consumption. PTA has started to become more important with the start-up of the Polief plant at Blagoveshchensk at the end of 2005.

In November abd December 2008, Stavrolen at Budyennovsk did not purchase acetic acid for VAM production. Consumption therefore fell in 2008 by 20% over 2007, down to 125,500 tons. Production of acetic acid at Nevinnomyssk restarted in January after stopping in November.

### Phthalic anhydride market

Phthalic anhydride production in Russia dropped 10% in 2008 against 2007, due largely to lower consumption which was down 15%. The paint sector has been particularly affected by the lack of credit and reduction in purchases of phthalic anhydride. Sales of domestically produced phthalic amounted to 59,300 tons which was 17% lower than in 2007. Impost rose slightly, mainly due to higher deliveries from the Lida plant n Belarus.

Russian Phthalic Anhydride Market (unit-kilo tons)			
	2008	2007	2006
Production	90.6	100.2	97.3
Imports	7.5	6.9	8.0
Exports	31.3	29.1	33.4
Marker Balance	66.8	78.0	71.9

Exports totalled 31,300 tons in 2008 for total revenue of \$35.95 million. Virtually all exports were undertaken by the main Russian producer Kamteks-Khimprom at Perm, whilst 37% of exports were directed to China. Other export destinations included Poland (19%), Finland (18%) and Ukraine (8%). Exports from Kamteks-Khimprom were conducted through trading companies Rosplast and Uralkhimprom. Kamteks-Khimprom is facing the prospect of bankruptcy owing 1.06

billion roubles to the state Foreign Trade and Investment Bank (VEB) due to long-term obligations which it has failed to meet.

The first part of 2009 has carried on in the same trend as in Q4, with very low demand and weak pricing. However, there were signs of an improvement in the market in February with higher sales than in recent months. Although demand is low, traders have nevertheless been able to increase prices slightly. In March, a seasonal upturn is expected and traders hope that the increasing demand will allow them to raise prices further.

## Low tonnage chemicals

Altaikhimprom is to restart benzoic acid production in March after completing the reconstruction of the plant. During January and February. the company was receiving orders from customers in the Altai region and other parts of Russia. Altaikhimprom is located at Barnaul and is the sole producer of benzoic acid in Russia.

Khimprom at Novocheboksarsk has started the reconstruction of its 4-aminophenol and N-benzilmidazol-5-amin plants. Delivery of the equipment will start in Q1 2009. The Novosibirsk factory of chemical concentrates increased net profit by 42% in comparison with 2007 to 1,393 billion roubles.

Sterlitamak Petrochemical Plant has completed the reconstruction of its unit for Agidol-1 and has now entered commercial operation. Modernisation was undertaken for the purpose of increasing capacity to 2,530 tpa from 1,500 tpa, and also quality improvements. Agidol-1 is used polymers for foodstuffs, and also for stabilisation of food oils, fats, etc.

#### **Plastics**

## Polycarbonate consumers' association

An association for polycarbonate consumers in Russia was formed at the end of January. The market has been expanding rapidly in recent years and despite the slowdown in the fourth quarter last year consumption was still 18% higher than in 2007. The opening of the polycarbonate plant at Kazanorgsintez has opened up a new dimension to the market, which has previously been dependent on imports. The main suppliers to the Russian market include Bayer, Mitsubishi, Dow, and GEP.

One of the main areas of consumption is for the production of polycarbonate sheets. Some of the main sheet producers include Polyalt at Omsk which has a capacity of 2,500 tpa, Kronos in Moscow with a capacity of 10,000 tpa; and Klinast in the Tver region with a capacity of 7,000 tpa. The Kazan company Safplast started production in September 2008 with a capacity of 10,000 tpa. Total capacity in Russia for polycarbonate sheets now amounts to 45-50,000 tpa, although production only amounted to around 24,000 tons in 2008.

### Thermoshrinkable films

Demand growth for thermoshrinkable films in Russia is expected to be lower in 2009 against 2008, but still remaining in positive territory. Over the past few years, the market has developed rapidly with the emergence of many new processing companies. There are estimated to be over 800 companies producing films, most of which use domestically produced raw materials and most possessing only small capacities. Duties are imposed on imported films due to the rise of domestic production. Whilst imported films possess barrier and optical properties qualities, domestic production accounts for 60% of the total market. PE-films dominate the market with nearly half of total consumption based on polyethylene, and the markets tend to be seasonal. PE films grew in 2008 by 8% over 2007. Aside domestic production, imports of PE films into Russia come from mainly from Turkey, China, France, Poland and Germany.

Over the next few years, there is expected to be a growth in the manufacture of multilayered thermoshrinkable films. Due to the increase in LLDPE usage in film production, import duties were



cancelled in July 2008 although this may be revised in 2009. Domestic LLDPE production is very small at present, but Nizhnekamskneftekhim is about to start producing at its new 230,000 tpa HDPE plant.

PP films dominated domestic bv **BOPP** production. particularly where Russia has a total capacity 138,000 tpa. Market consumption for PP films rose 19% Imports of PP films occur in 2008. occasionally, such as with tobacco companies that have worked with the same suppliers over a number of years. PP films

are divided into CPP films, BOPP and OPP. CPP films are growing quickest at the expense of BOPP and polyethylene films, although the market is only worth 25-30,000 tons at present.

#### ABS market 2008

ABS plastics' consumption in Russia dropped 5.8% in 2008 over 2007, falling from 43,800 tons to 41,300 tons. The expansion of the market in recent years has encouraged Nizhnekamskneftekhim to construct its own 50,000 tpa plant, which is scheduled to be completed in 2011. Consumption of ABS started to fall in the latter part of

ABS Market in Russia (unit-kilo tons)			
	2008	2007	
Production	14.6	18.3	
Exports	0.2	0.5	
Imports	26.9	26	
Market Balance	41.3	43.8	

2008, which led to reduced production after October at the sole Russian plant Plastik at Uzlovaya. Whilst production was lower in 2008 over 2007, imports increased slightly with nearly all product arriving from South Korea. The market in 2009 has continued in the same trend as Q4 2008, with credit conditions affecting the main ABS outlets in construction and automotive sectors. Prices have started to rise, however, due to the devaluation of the rouble which is making imports more expensive. Plastik is unable to meet the full market demand imports will, however, continue to play a role.

Demand is expected to be lower in the first part of 2009, but may recover slightly with construction activity in the second and third quarters.

## Other plastics news

Plastik at Syzran in the Samara region has asked for support from the Ministry of Industry, Energy and Technology to open a credit line worth around one billion roubles for a period of three years. The company needs the finance to keep running after the non-payment of bills from the car manufacturer AvtoVaz, which is the main customer of its products. AvtoVaz owes close to one billion roubles to Plastik and the credit line would provide a short term solution.

Tyumen Plastics Plant produced 21,160 tons of resins in 2008, 1.7% down on 2007. Orders dropped between 15-25% over November and December, particularly in the construction sector which consumes phenol-formaldehyde resins from the plant. Largely as the result of the downturn, the new unit under construction by Tyumen Plastics Plant will not be completed now until the end of 2009. The project is well advanced and was originally planned for start-up in 2008. The new plant will have a capacity of 50,000 tpa and produce phenol-formaldehyde and urea-formaldehyde resins.

#### Ukraine

## Karpatneftekhim-chlorine

LUKoil has decided to continue construction on the new chlorine and caustic plants at Kalush which are to come onstream either in 2010 or 2011. Karpatneftekhim produced only 85,000 tons of ethylene in 2008, 63% down on 2007. The olefin complex stopped production in June 2008 due mainly to the high cost of raw

Karpatneftekhim Ethylene			
Production (unit-kilo tons)			
	2008	2007	
Production	85	228.4	
Exports	8.1	43.6	
Market Balance	76.9	184.8	

materials which LUKoil-Neftekhim was forced to import from Russia. Of the total production used captively in 2008, 63% was consumed in VCM and 37% in polyethylene. Exports from Karpatneftekhim arte normally sent to Slovakia, Hungary and Romania. In order to become independent in Ukraine Karpatneftekhim is trying to construct its own power source which will provide sufficient steam for the petrochemical complex. A new company LUKoil Energy and Gaz Kalush has been

created to manage the project. Karpatneftekhim intends to cut by over a thousand jobs due to the stoppages in production which started in the first half of 2008.

#### **Linos at Lisichansk**

Lower demand for polypropylene on the Ukrainian domestic market has forced Linos at Lisichansk to focus more on the export market. Many converters in Ukraine are not buying in the same volumes as last year. in addition, nearly all polypropylene produced at Lisichansk has been sent for export. The market in February showed an improvement and with the currency devalued significantly, imports have become uncompetitive thus leaving the market open to Limos.

## Ukrainian gas prices

The National Electricity Regulatory Commission of Ukraine (NERC) set the gas price for industrial producers at 2020.25 hryvnia per thousand cubic metres in 2009. The gas price for both chemical and metallurgical producers was set at 1899.25 hryvnia per thousand cubic metres. This price is net of VAT, transportation fees, etc. According to NERC's estimation the gross price will amount to 2425 hryvnia per thousand cubic metres (up 28%) for the chemical industry and 2570 hryvnia (up 27%) for the rest of the industries. The marginal price of natural gas will vary dependent on exchange rate changes.

Following the increase in gas prices, Azot at Severodonetsk has increased domestic methanol prices by 750 hryvnia to 4200 hryvnia per ton. Stirol is considering a halt in chemical production, as it has become very difficult to produce ammonia profitably in relation to gas prices and fertiliser prices. Thus, Stirol could only produce ammonia in future for captive use.

Dneproazot restarted production in February after being forced to stop in January due to gas supply restrictions. The company is producing 1,600 tons of ammonia and 2,000 tons of urea per day. Prices have risen since the start of the year after supply tightened.

## **Central Asia**

#### Uzbek chemical news, Feb 2009

Navoiazot increased ammonia production by 2.6% in January 2009 against January 2008 totalling 39,220 tons. The company also produced 848 tons of methanol and 406 tons of acetic acid. Caustic soda dropped 20% to 1,390 tons, liquid chlorine 40% down to 495 tons and sodium hypochlorite 23% to 660,700 tons.

Mitsubishi plans to invest around \$5 million in the chemical industry in Uzbekistan in 2009, including Navoiazot, Ferganaazot and Maxam-Chirchik.

For the whole of 2008, the Uzbek state chemical holding Uzkhimesanoat increased turnover by 8.5% against 2007 and totalled \$618.7 million. The holding produced 916,460 tons of nitrogen fertilisers in 2008 and 148,450 tons of phosphate fertilisers, which was 5% up and 0.6% down on 2007 respectively. In 2009, the Kungrad Soda Plant, which is part of Uzkhimesanoat, plans to export around 36,000 tons of soda ash to neighbouring Central Asian countries and Russia. Production was around 70,000 tons at Kungrad in 2008, which is the only soda ash plant in Uzbekistan and Central Asia, whilst 6,000 tons were exported. The Kungrad plant started production in August 2006 and was constructed by the Chinese company Sitik.

## CIREC Monthly News, Issue no 219, 3 March 2009

## Kaustik-Pavlodar

Kaustik in Kazakhstan will start work on revamping the chlorine facilities at Pavlodar in May 2009, involving investments of \$108.3 million. Equipment deliveries for the new membrane plant is expected to start in November 2009, with project completion targeted for the first half of 2010. The project is being managed by the Italian company Uhdenora, which will provide the necessary equipment and materials for the complete plant consisting of the cell house, the catholyte system, 50% NaOH concentration and flaking unit, the brine system, the chlorine liquefaction line, the hydrochloric acid unit and the pool of utilities. Uhdenora will also supply the supervision service for the commissioning and start-up of the plant.

Under the project, salt from the Kalkamansky deposit which holds more than 7 million tons. and from other natural deposits will be used. Due to the threat of mercury flowing into the Irtysh river chlorine production has been shut in Kazakhstan since January 1994. BY 2004, the area surrounding the chemical plant had been cleaned of mercury content. The new company Kaustik was created in 2002 and the contract with Uhdenora was finalised in April 2008. Industrie De Nora in its workshops in Germany will perform assembling of the BM 2.7 cell elements as well as the catalyst layer of the electrodes.

## **Relevant Currencies**

(Czech crown. Kc. \$1= 22.027. €1 = 28.182): (Hungarian Forint. Ft. \$1 = 235.4. €1 = 301.01): (Polish zloty. zl. \$3.6882. €1 =4.7140): (Romanian Lei. \$1 = 3.36. €1= 4.2968). (Ukrainian hryvnia. \$1 = 8.350. €1 = 10.762): (Rus rouble. \$1 = 35.635. €1 = 45.517)

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