



## PLASTIC PIPES AND FITTING 2015 CONFERENCE REVIEW

Source: INVENTRA publications

The Ninth International Plastic Pipes and Fitting 2015 Conference, organised by INVENTRA, part of CREON Group, took place on 8 April. POLYPLASTIC Group became a General Sponsor and Centropolimer was a partner.

Opening the conference, Sandjar Turgunov, General Director of CREON Energy, said that the colossal potential of the Russian plastic pipes market makes all participants feel confident despite difficult economic times. However, the current crisis has touched the industry as well. The domestic PE pipes and fittings market was down by 10% at the end of 2014 and shrank by a third within the first quarter of 2015 – which was worse than predicted. Staying competitive in such conditions forces processors try to minimise the costs and can result in the wrong raw materials or cheap substitutes being used. An increase in counterfeit products is a potential concern for market participants.

According to Lola Ogrel, INVENTRA Department for Analytics director, the Russian plastic pipe market has been growing. In 2003 consumption of main plastic pipes was less than 125 thousand tonnes. The demand for pipes grew 4.5 times within 10 years and reached 560 thousand tonnes in 2013. However, the PE pipes industry saw a reduction, making

pipe consumption in Russia go down by 5%. This result is not so bad considering the problems with economy, said the speaker.

Raw materials supply is one of the major topics for the processors as this represents 85% of the pipe production price. The accident at Stavrolen, plus general political and economic factors, has further aggravated the situation in the polymeric raw materials segment. The Stavrolen shutdown did not affect the PP market as the shortage was filled by polypropylene from Poliom and Tobolsk-Polimer. However, the HDPE market experienced a severe shortage and suffered a sharp price increase which led to reduced PE pipes production.

Half of PP pipes are made of imported raw materials. About 40% are random and block copolymers produced by SABIC, Borealis, Hyosong Corporation, Ineos and others. Imported homopolymer is used for the other 10%. The situation for Russian pipe raw materials improved in 2014. Nizhnekamskneftekhim has resumed production of PP4132B random copolymer after a break of four years. Tomsneftekhim widened the range of pipe grades of copolymers, and Poliom began production of PP H007 EX pipe grade homopolymer for non-pressure pipe, sewer and drainage systems. The PP pipes market doesn't only



depend on imported raw materials, half of PP pipes used in Russia are made outside. It should be said that the last few years saw some positive changes, such as reduction of imported pipes from 82% to 43% and growth of PP consumption from domestic production in 2013–2014. The total consumption of PP pipes of all kinds exceeded 120 thousand tonnes. The shortage of home produced certified raw materials and the high cost of imported ones are the main constraining factors for the development of the PP pipes production industry.

Consumption of PVC pipes in Russia grew threefold over the last 10 years, reaching 60 thousand tonnes. This market is expanding mainly as a result of growing domestic production. Dependency on imported PVC pipes remained in 2014, however, the launch of RusVinyl at the end of last year, will minimise imported raw materials as this plant has the capacity to produce 300 thousand tonnes of suspension PVC, although this will not influence pipe production output.

Any increase in plastic pipes production capacity is limited by the absence of domestic manufacturers of specialised equipment, uncertain government policy in the housing and utility sector, and the stereotypical use of conventional metal pipes.

Miron Gorilovskiy, General Director of POLYPLASTIC Group, said that contraction of the PE pipes market 2014 was predicted. According to his evaluations, the volume of domestic pipe grade PE shrank by 8–9%. Belarus did not see sharp rises in PE prices or market volume. However, the Kazakhstan plastic pipes market has a very positive outlook. The speaker pointed out that it is very difficult to make any forecasts as many things depend on the exchange-value of rouble and the prices for raw hydrocarbons, but a shrinking market was likely. Regardless of relatively good demand in March, January and February had been disappointing. According to preliminary estimates, the decline in pipe grade PE in the first quarter was 32%. Mr. Gorilovskiy explained that market pessimism is due to a sharp decline in orders and investments primarily in the

housing and utility sector. The company is cautiously expecting possible orders for the construction of World Championship facilities in 2018 and the development of Vostochniy Space-launch complex.

According to POLYPLASTIC Group data, 2014 saw increase in domestic pipe PE 100 consumption to 54% compared to 48% in the previous year. A contraction of 44% was expected for 2015. The PE pipes share of the gas sector in 2015 should make up 16% dropping from 18% in 2014. This was due to cuts in gas infrastructure development due to the difficult economic situation. According to Mr. Gorilovskiy, in the situation like this, the industry must be aware of surrogate products made from PE grades that are not approved for pipe production. There is a positive side too – large customers are imposing scrupulous quality checks on their supplied products, which should be encouraged.

Mr. Gorilovskiy informed the conference delegates that the company intended to further develop high pressure reinforced pipes for Russia's oil and gas industry. He cited examples of plastic pipes for gas transportation infrastructure for LUKOIL in Perm Region. There, pipes were used with diameters ranging from 500 to 630 mm for gathering and refining associated gas. These environmentally friendly and corrosion-resistant products are particularly important for the oil and gas industry.

In his speech, Mr. Gorilovskiy talked about the necessity for improving access to international certification for pipe products in order to simplify export. POLYPLASTIC plans to export 5–8% of its production in the future.

With regard to export, Mr. Gorilovskiy said that falling oil prices meant PE prices in Europe and South-East Asia had fallen, however in Russia they went up. He estimated that they would be at similar levels by May. POLYPLASTIC Group, was also considering supplying products to China on a pilot basis, preferably through a joint venture with a local manufacturer. Innovative products such as Kevlar reinforced PE pipes will be key to successful entry into the Chinese market.

Mikhail Bondarenko, Marketing Director of Pro Aqua, presented his vision of the PP pressure pipes market. Traditionally half the pipes in Russia are imported, therefore devaluation of the rouble will help Russian producers to increase their share of the market despite the decline in consumption. He also noted that imported equipment is not entirely compatible with Russian raw materials. In reality this significantly slows the production process, which is one of the constraining factors in the development of polymers processing.

The supply volume of PP pipes in 2014 did not change compared to the previous year, however, Oleg Kozlov, Technical Director of Alterplast, claimed this was due to overstocking. He believes there is a surplus of imported pipes bought at high prices with no demand in the market. A market drop of 20–50% was predicted for the end of 2015. The speaker compared demand for different pipe grades in Russia and abroad. In his view, the European market is moving towards metal-reinforced plastic pipes, PEX/PERT pipes and aluminium-free pipes whereas Russia considers PP pipes the priority. PP pipes consumption grew from 148.8 million metres in 2008 to 237.7 million metres in 2013. Mr. Kozlov noted that PP pipes are actively used for domestic networks, replacing old steel pipes. Consumption of polybutene pipes has increased fourfold since 2008, reaching 350 thousand tonnes in 2013.

Consumption of metal-reinforced plastic pipes was 129.1 million metres in 2013, down by 4.3 million metres compared to 2012, which, according to the speaker, was due to their high price.

According to data from dealers, consumption of PP fittings by heating systems and water supply industries in Russia in 2010–2013 made up 305 million dollars. Brass fittings for metal-reinforced plastic and PEX/PERT pipes reached 198 million dollars.

The plastic pipes and fittings market is stable, however participants can



turn from competitors into fellows in misfortune, said Elena Volkova, Head of Fittings and Pipe Accessories Division of POLYPLASTIC Group. The speaker confirmed that sale of fittings has been slow. Fittings are more profitable than pipes, however, customers expect complete systems rather than separate components. This type of service can deliver a more stable income in difficult economic circumstances. Each POLYPLASTIC site has a production shop for custom-made items, which gives a competitive advantage when pitching for a complicated order. Mrs. Volkova also noted that the company had found cooperation with the Kokhanovo Pipe Plant in Belarus very productive due to low prices of their products within the Customs Union.

Regarding trends in the fittings market, Mrs. Volkova expects production to follow the pipe market. Currently the fittings and accessories market as a monetary equivalent is about 12% of PE pipes sales. Having said that, it is unlikely that new participants will appear in the fittings market as they will have to establish a distribution channel for their pipe systems.

Konstantin Shepel, Representative from Immid, said that 2015 was quite a hard year for small polymer processors. The difficult economic situation and a decline in orders had a negative impact on processors in Central Russia as well as regional markets. However, he was confident that their company could retain a similar supply volume to the previous year.

Alexander Kozlov, First Deputy General Director of Domodedovo Vodokanal, talked about the use of plastic pipes at water supply and disposal facilities. 20 years ago, there were some questions about using plastic pipes, however today there are no doubts at all. Nearly 60% of municipal networks in Russia are in a critical condition. Every year 5–7% of pipelines must be repaired in order to avoid water or sewer pipe emergencies. The index is lower in reality and is due to underfunding in the housing and utility sectors as well as technical difficulties in heavily congested cities. For

these reasons, trenchless replacement of steel pipes with plastic pipes is gaining popularity.

Alexander Emke, Leading Engineer at the MOSGAZ Mechanical Testing Laboratory presented his paper on “Strength properties and deformability of plastic pipes and couplers” using data from the Moscow Centre for physical and mechanical properties research of construction materials (MGTs). According to his report, PE pipes and fittings make up a significant share in total purchase volume. Every batch bought by the company goes through incoming quality control at their own research centre using a temperature range of –70 to +250 °C. So far, there has only been one case of defective products identified. These were replaced by the manufacturer.

Gumer Murzakhanov, Director of the MOSGAZ Research Centre, stated that the company is not retaining the volume of orders but is increasing purchase volumes of plastic products for gas supply networks.

Nikolay Asatiani, General Director of INVENTRA, concluded the conference. He commented that market participants are competing clients by offering extra services and integrated design solutions rather than price dumping. This type of approach protects the manufacturer from a sharp decline in orders and transforms the business into a pipeline systems provider, rather than simply a supplier of either pipes, fittings, manholes or installation services.

The forecast for the near future remains uncertain. The plastic pipes and fittings market is exposed to a number of factors, including raw materials prices, exchange rates and economic stagnation. Even in such hostile conditions, market participants must continue to find solutions for utility networks, national projects, and gas distribution development. It is vital that participants continue to talk openly about the problems in the industry and find ways to address them.

