



ANTI-COUNTERFEIT LABELLING

How plastic pipe makers are combating fakery: a blockchain solution by POLYPLASTIC.

Russian President Vladimir Putin is known for his anti-counterfeit statements, describing the problem as a “disaster”. In 2015, he signed a decree to establish the State Commission for Combating Illegal Trafficking of Industrial Products, followed in 2016 by the government approving a corresponding Strategy for the period until 2020 and the planning period until 2025. The authorities believe that counterfeiting is one of the “most burning issues in Russia, hindering the development of individual sectors and industry as a whole”.

ACCORDING TO THE PIPELINE SYSTEMS MANUFACTURERS ASSOCIATION (PSMA), ABOUT 30% OF PRESSURE PIPES AVAILABLE IN THE MARKET ARE COUNTERFEITS.

In polymer pipework, one example is subpar products made by dishonest companies from ersatz non-GOST-compliant materials or recycled waste, such as bottles or other packaging. Compliance certificates for products like those are often fake.

According to the Pipeline Systems Manufacturers Association (PSMA), about 30% of pressure pipes available in the market are counterfeits. The Foundation for Development of Tube Industry (FRTIP) estimates that utilities or construction companies illegally reuse 75% of detachable oil and gas pipes, which leads to emergencies. The pipe industry's annual losses reach RUB 30–40 bn, including RUB 9 bn in the polymer segment, the FRTIP says.

A potential solution is mandatory labelling, but the Ministry of Industry and Trade is only considering this option.

While the government's decision is yet to be made, some manufacturers have already started their own initiatives. One of them is a pilot labelling project launched by POLYPLASTIC's Klimovsky Pipe Plant in October.



Viktor Evtukhov, Deputy Minister of Industry and Trade, at POLYPLASTIC's Klimovsky Pipe Plant.

THE PIPE INDUSTRY'S ANNUAL LOSSES REACH RUB 30–40 BN, INCLUDING RUB 9 BN IN THE POLYMER SEGMENT, THE FRTP SAYS.

The key components of the solution piloted by the Klimovsky Pipe Plant are a labelling system and a framework for storing each item's supply chain data on Bitfury's Exonum blockchain platform, an approach that the company believes to be crucial for its anti-counterfeit efforts. Every pipe now comes with a unique label containing all necessary product data, including the materials used. Information on pipes and materials received and used for making them is recorded in the data storage system, with the corresponding QR codes appearing on conformity certificates. Checking data against these codes helps assure quality, while the blockchain technology protects information from being manipulated.

The project is being implemented on the instruction of the State Commission for Combating Illegal Trafficking of Industrial Products and coordinated by the PSMA, which acts to address the counterfeit problem in the pipeline system industry together with the state and regional commissions.

After Viktor Evtukhov, Deputy Minister of Industry and Trade, kicked the initiative off, delegates from the Centre for Prospective Technologies Development, PSMA and some of Russia's leading polymer pipe companies took part in a round table discussion on labelling polymer pipes for water supply and heating networks.



Conformity certificates bear special QR codes.

DEPLOYING A BLOCKCHAIN PLATFORM TO TACKLE COUNTERFEITING IS A WIN-WIN SITUATION FOR BOTH THE GOVERNMENT AND TRANSPARENT COMPANIES.

“Labelling is an effective way to combat illegal trafficking of pipe products. Proliferation of fake pipes is bad for the country’s entire utility infrastructure. Deploying a blockchain platform to tackle counterfeiting is a win-win situation for both the government and businesses. We are already making progress here and are open for a dialogue with our industry peers to test and improve this mechanism,” said Lev Gorilovsky, President of POLYPLASTIC Group.

“We need to consider the idea of using product identification labels on polymer pipes for water supply and heating networks, engaging the industry community to figure out how we can implement this throughout the life cycle, from raw materials to end products,” commented Viktor Evtukhov, Deputy Minister of Industry and Trade. “Labelling can generally prove to be an effective way of combating illegal trafficking of pipe products. Proliferation of fake pipes is bad for the country’s entire utility infrastructure. Deploying a blockchain platform to tackle counterfeiting is a win-win situation for both the government and transparent companies. At the Klimovsky Pipe Plant, this is already a reality.”